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A
GENERAL VIEW
OF THE
AGRICULTURE
OF THE
COUNTY OF KENT;
WITH
Obſervations on the Means of its Improvement.

Drawn up for L. Academies &c
The Conſideration of the Board of Agriculture
AND INTERNAL IMPROVEMENT,
From the original Report tranſmitted to the Board;
WITH ADDITIONAL REMARKS OF SEVERAL RESPECTABLE COUNTRY GENTLEMEN AND FARMERS.

By John Boys, of Betſhanger, Farmer.

> Kent, in the Commentaries Cæſar writ,
> Is term'd the civil'ſt place of all this iſle;
> Sweet is the country, becauſe full of riches,
> The people liberal, valiant, active, wealthy.
>
> SHAKSPEARE

LONDON:
PRINTED FOR G. NICOL, PALL-MALL,
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Cadell and Davies Strand; William Creech, Edinburgh;
and John Archer, Dublin.

1796.

G.R. III.
BRITISH MUSEUM

ADVERTISEMENT.

THE great deſire that has been very generally expreſſed for having the Agricultural Surveys of the Kingdom reprinted, with the additional communications which have been received ſince the Original Reports were circulated, has induced the Board of Agriculture to come to a reſolution of reprinting ſuch as may appear on the whole fit for publication. It is proper at the ſame time to add, that the Board does not conſider itſelf reſponſible for any fact or obſervation contained in the Reports thus reprinted, as it is impoſſible to conſider them yet in a perfect ſtate; and that it will thankfully acknowledge any additional information which may ſtill be communicated: An invitation, of which, it is hoped, many will avail themſelves, as there is no circumſtance from which any one can derive more real ſatisfaction, than that of contributing, by every poſſible means, to promote the improvement of his Country.

N. B. *Letters to the Board may be addreſſed to Sir* John Sinclair, Bart. *the Preſident,* M. P. *London.*

London, Jan. 1796.

PLAN

FOR REPRINTING THE

Agricultural Surveys.

By the PRESIDENT of the BOARD of AGRICULTURE.

A BOARD eſtabliſhed for the purpoſe of making every eſſential enquiry into the Agricultural State, and the means of promoting the Internal Improvement of a powerful Empire, will neceſſarily have it in view to examine the ſources of public proſperity, in regard to various important particulars. Perhaps the following is the moſt natural order for carrying on ſuch important inveſtigations; namely, to aſcertain,

1. The riches to be obtained from the ſurface of the national territory;
2. The mineral, or ſubterraneous treaſures, of which the country is poſſeſſed;
3. The wealth to be derived from its ſtreams, rivers, canals, inland navigations, coaſts, and fiſheries; and,
4. The means of promoting the improvement of the people, in regard to their health, induſtry, and morals, founded on a *ſtatiſtical* ſurvey, or a minute and careful enquiry into the actual ſtate of every parochial diſtrict in the kingdom, and the circumſtances of its inhabitants.

Under one or other of theſe heads, every point of real importance that can tend to promote the general happineſs of a great nation, ſeems to be included.

Inveſtigations of ſo extenſive and ſo complicated a nature, muſt require, it is evident, a conſiderable ſpace of time before they can be completed. Differing indeed in many reſpects from each other, it is better perhaps that they ſhould be undertaken at different periods and ſeparately conſidered. Under that impreſſion, the Board of Agriculture has hitherto directed its attention to the firſt point only; namely, the cultivation of the ſurface, and the reſources to be derived from it.

That the facts eſſential for ſuch an inveſtigation might be collected with more celerity and advantage, a number of intelligent and reſpectable individuals were appointed to furniſh the Board with accounts of the ſtate of huſbandry, and the means of improving the different diſtricts of the kingdom. The returns they ſent were printed, and circulated by every means the Board of Agriculture could deviſe, in the diſtricts to which they reſpectively related; and, in conſequence of that circulation, a great maſs of additional valuable information has been obtained. For the purpoſe of communicating that information to the public in general, but more eſpecially to thoſe counties the moſt intereſted therein, the Board has reſolved to reprint the Survey of each County, as ſoon as it ſeemed to be fit for publication; and among ſeveral equally advanced, the counties of Norfolk and Lancaſter were pitched upon for the commencement of the propoſed publication; it being thought moſt adviſeable to begin with one county on the eaſtern, and another on the weſtern coaſt of the iſland. When all theſe Surveys ſhall have been thus reprinted, it will be attended with little difficulty to draw up an abſtract of the whole (which will not probably exceed two or three volumes quarto) to be laid before His Majeſty and both Houſes of Parliament; and afterwards, a general Report on the preſent ſtate of the country, and the means of its improvement, may be ſyſtematically arranged, according to the various ſubjects connected with agriculture. Thus, every individual in the kingdom may have,

1. An account of the huſbandry of his own particular county; or,
2. A general view of the agricultural ſtate of the kingdom at large, according to the counties, or diſtricts, into which it is divided; or,
3. An arranged ſyſtem of information on agricultural ſubjects, whether accumulated by the Board ſince its eſtabliſhment, or previouſly known;

And thus information reſpecting the State of the kingdom, and Agricultural Knowledge in general, will be attainable with every poſſible advantage.

In reprinting theſe Reports, it was judged neceſſary that they ſhould be drawn up according to one uniform model; and after fully conſidering the ſubject, the following form was pitched upon, as one that would include in it all the particulars which it was neceſſary to notice in an Agricultural Survey. As the other Reports will be reprinted in the ſame manner, the reader will thus be enabled to find out at once where any point is treated of to which he may wiſh to direct his attention.

PLAN OF THE REPRINTED REPORTS.

Preliminary Obſervations.

CHAP.

I. Geographical State and Circumſtances.
- SECT. 1.—Situation and Extent.
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- 4.—Soil and Surface.
- 5.—Minerals.
- 6.—Water.

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- SECT. 1.—Eſtates, and their Management.
- 2.—Tenures.

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- SECT. 1.—Houſes of Proprietors.
- 2.—Farm-Houſes and Offices, and Repairs.
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- SECT. 1.—Size of Farms.—Character of the Farmers.
- 2.—Rent—in Money—in Kind—in Perſonal Services.
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V. Implements.

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- 3.—Rotation of Crops.

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Sect. 4.—Crops commonly cultivated; their Seed, Culture, Produce, &c. *
5.—Crops not commonly cultivated.

Chap.
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Sect. 1.—Natural Meadows and Paſtures.
2.—Artificial Graſſes.
3.—Hay Harveſt.
4.—Feeding.
IX. Gardens and Orchards.
X. Woods and Plantations.
XI. Waſtes.
XII. Improvements.
Sect. 1.—Draining.
2.—Paring and Burning.
3.—Manuring.
4.—Weeding.
5.—Watering.

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* Where the quantity is conſiderable, the information reſpecting the crops commonly cultivated, may be arranged under the following heads:

1. Preparation. { tillage, manure. }
2. Sort.
3. Steeping.
4. Seed (quantity ſown.)
5. Time of ſowing.
6. Culture whilſt growing { hoe, weeding, feeding. }
7. Harveſt.
8. Threſhing.
9. Produce.
10. Manufacture of bread.

In general, the ſame heads will ſuit the following grains:
Barley. Oats. Beans. Rye. Peaſe. Buck-wheat.
Vetches - - Application.
Cole-ſeed - { Feeding, Seed. }
Turnips - { Drawn - - - Fed - - - - Kept on graſs - —— in houſes. }

Chap.

CHAP.
XIII. Live Stock.
    SECT. 1.—Cattle.
    2.—Sheep.
    3.—Horſes, and their Uſe in Huſbandry compared to Oxen.
    4.—Hogs.
    5.—Rabbits.
    6.—Poultry.
    7.—Pigeons.
    8.—Bees.
XIV. Rural Economy.
    SECT. 1.—Labour—Servants—Labourers—Hours of Labour.
    2.—Proviſions.
    3.—Fuel.
XV. Political Economy, as connected with or affecting Agriculture.
    SECT. 1.—Roads.
    2.—Canals.
    3.—Fairs.
    4.—Weekly Markets.
    5.—Commerce.
    6.—Manufactures.
    7.—Poor.
    8.—Population.
XVI. Obſtacles to Improvement, Including General Obſervations on Agricultural Legiſlation and Police.
XVII. Miſcellaneous Obſervations.
    SECT. 1.—Agricultural Societies.
    2.—Weights and Meaſures.
Concluſion.—Means of Improvement, and the Meaſures calculated for that Purpoſe.
Appendix.

PERFECTION in ſuch enquiries is not in the power of any body of men to obtain at once, whatever may be the extent of their views, or the vigour of their exertions. If Lewis XIV. eager to have his kingdom known, and poſſeſſed of boundleſs power to effect it, failed ſo much in the attempt, that, of all the provinces in his kingdom, only one was ſo deſcribed as to ſecure the approbation of poſterity *, it will not be thought ſtrange that a Board, poſſeſſed of means ſo extremely limited, ſhould find it difficult to reach even that degree of perfection which perhaps might have been attainable with more extenſive powers. The candid Reader cannot expect in theſe Reports more than a certain portion of uſeful information, ſo arranged as to render them a baſis for further and more detailed enquiries. The attention of the intelli-

* See Voltaire's Age of Lewis XIV. vol. ii. p. 127, 128, edit. 1752. The following extract from that work will explain the circumſtance above alluded to.

“ Lewis had no Colbert, nor Louvois, when, about the year 1698,
“ for the inſtruction of the Duke of Burgundy, he ordered each of the
“ intendants to draw up a particular deſcription of his province. By
“ this means an exact account of the kingdom might have been obtained,
“ and a juſt enumeration of the inhabitants. It was an uſeful work,
“ though all the intendants had not the capacity and attention of Mon-
“ ſieur de Lamoignon de Baville. Had what the king directed been as
“ well executed in regard to every province, as it was by this magiſ-
“ trate in the account of Languedoc, the collection would have been
“ one of the moſt valuable monuments of the age. Some of them are
“ well done; but the plan was irregular and imperfect, becauſe all the
“ intendants were not reſtrained to one and the ſame. It were to be
“ wiſhed, that each of them had given, in columns, the number of
“ inhabitants in each election; the nobles, the citizens, the labourers,
“ the artizans, the mechanics; the cattle of every kind; the good, the
“ indifferent, and the bad lands; all the clergy, regular and ſecular,
“ their revenues; thoſe of the towns, and thoſe of the communities.

“ All theſe heads, in moſt of their accounts, are confuſed and imper-
“ fect; and it is frequently neceſſary to ſearch with great care and pains
“ to find what is wanted. The deſign was excellent, and would have
“ been of the greateſt uſe, had it been executed with judgment and
“ uniformity.”

gent Cultivators of the kingdom, however, will doubtleſs be excited; and the minds of men in general, gradually brought to conſider favourably of an undertaking which will enable all to contribute to the national ſtores of knowledge, upon topics ſo truly intereſting as thoſe which concern the Agricultural Intereſts of their country: intereſts which on juſt principles never can be improved, until the preſent ſtate of the kingdom is fully known, and the means of its future improvement aſcertained with minuteneſs and accuracy.

PREFACE.

PREFACE.

THE original Report having been printed by the Board of Agriculture, and circulated for the purpoſe of procuring additional remarks, was returned to me by the Board, with a variety of uſeful hints, obſervations, and corrections; of which I have endeavoured to avail myſelf in this publication, to the advantage, I truſt, of thoſe who may take the trouble of peruſing it. It is ſtill, however, not ſo complete as could be wiſhed for; but a generous and candid public will excuſe any imperfections to be found in it, however numerous, and will conſider them as almoſt unavoidable, when it is known that it was originally the work of one individual, unlettered, and immerſed in the cares of a numerous family, and an extenſive buſineſs.

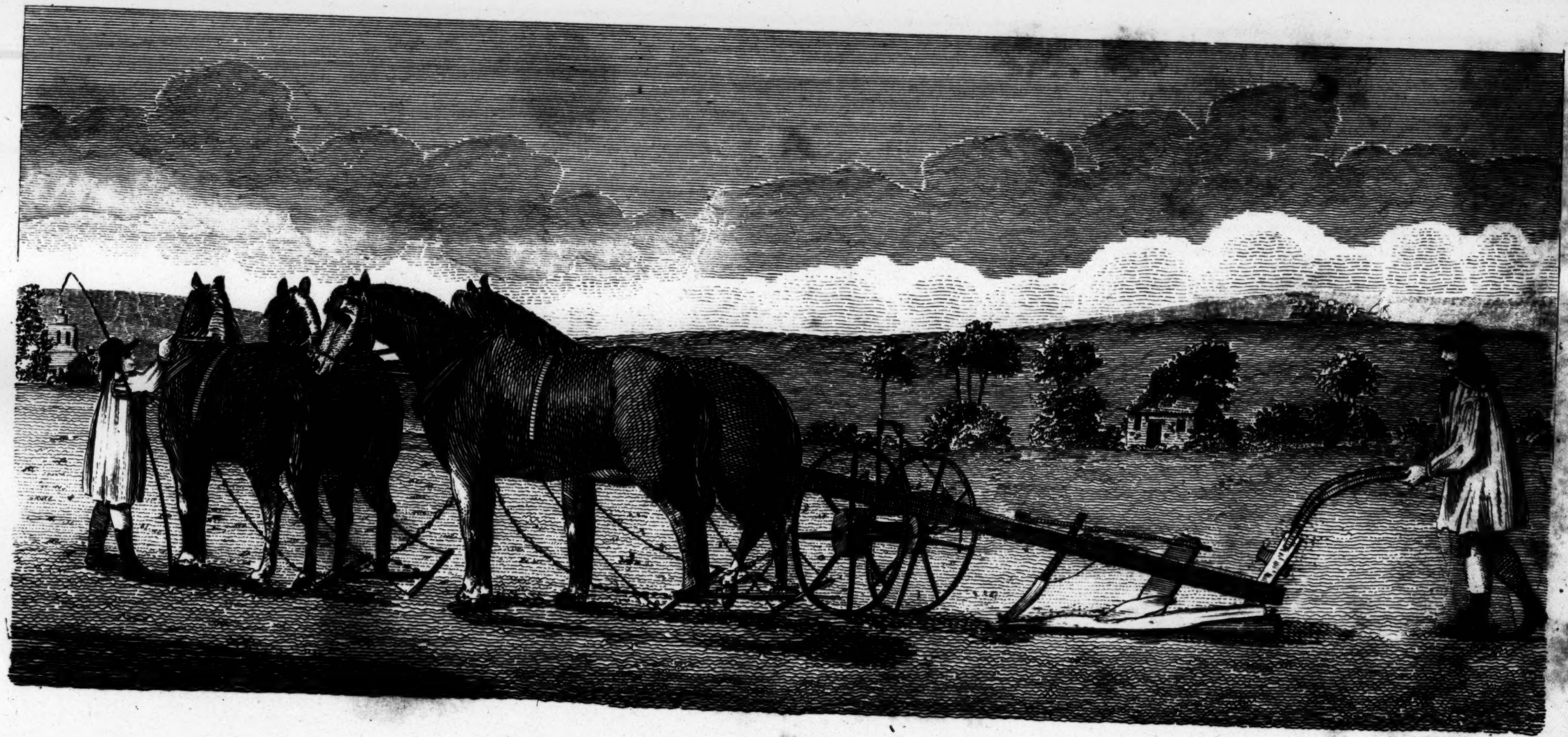
Neither

PREFACE.

Neither pains nor expence have been ſpared to procure information; and the reſult is faithfully detailed. Having been brought up under a father who had the reputation of being a good practical farmer, and having been all my life engaged in the cultivation of different ſoils, and in grazing, I preſume to think myſelf qualified to form opinions on the various ſyſtems of huſbandry; but when I recommend any practice, my readers may be aſſured that I do ſo, not from theory only, but from my own experience.

If the wealth and population of this Iſland may be expected to increaſe with the improvements that may be made in the cultivation of its ſoils to the utmoſt point of perfection, what glorious proſpects are opened to our view, by the eſtabliſhment of a Board of Agriculture, whoſe great object it will be to collect facts, diffuſe knowledge, and reward excellence, in the department over which it is appointed by the wiſdom of Parliament to preſide!

G.R. III
BRITISH MUSEUM



Neele sc Strand.

KENTISH TURN-WREST PLOUGH.

AGRICULTURAL SURVEY OF KENT.

CHAPTER I.

GEOGRAPHICAL STATE AND CIRCUMSTANCES.

SECT. I. — *Situation and Extent.*

THIS county forms the ſouth-eaſt angle or corner of the kingdom, and probably derives its name from that circumſtance. Its figure is quadrilateral; and it is bounded on the north ſide by the river Thames, the county of Eſſex, and the German Ocean; on the ſouth by the county of Suſſex; on the eaſt by the Britiſh Channel; and on the weſt by the county of Surrey.

It is about ſixty-three miles in length, from Deptford to the point of the North Foreland, comprehending between theſe extremities about one degree and twenty-nine minutes of longitude; and meaſures on the eaſt ſide, in a direct line from the North Foreland to Dengeneſs-Point, nearly forty miles, between the latitudes of 50°, 54′ and 51°, 23′, 20″ north.

Sect. II. — *Diviſions.*

The county is divided into two grand diſtricts, Weſt and Eaſt Kent; the former containing the Lath of Scray; the other comprizing the Laths of St. Auguſtine and Shepway, with the upper diviſion of Scray.

The county contains about fourteen hundred ſquare miles, or eight hundred ninety-ſix thouſand acres *, ſixty-three hundreds, four hundred and thirteen pariſhes, two cities, twelve corporate towns, thirty-nine market towns, nine thouſand freeholds, forty thouſand houſes, and two hundred thouſand inhabitants.

It ſends eighteen members to parliament, pays nearly a twenty-fourth part of the land-tax, and provides nine hundred and ſixty men for the national militia.

Two chains of hills run through the middle of Kent, called the Upper and Lower; or, the Chalk and Gravel Hills. The northern range and whole north ſide of the county are compoſed principally of chalk and flints; the ſouthern of iron and ragſtone: more weſterly, towards Surrey, clay and gravel prevail upon the eminences.

Below this laſt range lies the Weald: an extenſive and nearly level tract of land, rich and fertile at ſome places; where fine paſturage and timber are produced.

The north part of Shepey is high ground; but it is moſtly low and marſhy on the ſouth ſide, where two ſtreams, running into the Swale, form the iſlets of Elmley and Harty.

Thanet had a full claim to the title of an iſland when the Rutupine Port was in its proſperity; but its pretenſion to the appellation is now barely kept up by a ſmall ſewer communicating with the Stour and the ſea. The bed of that once famous harbour now forms valuable tracts of marſhes, comprehending above twenty-five thouſand acres. Thanet, including Stonar, contains nearly forty-one ſquare miles, or about twenty-ſeven thouſand acres.

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* By meaſuring all the ſinuoſities of the coaſt, I make the circumference of Kent 165 miles; but the proper boundary for aſcertaining the contents cannot be more than 150 miles; which, reduced to a ſquare of four ſides, gives 1406,25 ſquare miles, or 900,000 ſtatute acres: from which ſhould be deducted all the public waters, equal perhaps to ten ſquare miles; which reduces the meaſure to 893,600 acres.

Note by William Boys, Eſq.

The Rother riſes in Suſſex, and empties itſelf into the ſea at Rye, forming the harbour of that port. It had formerly another outlet at Romney, the dry channel of which is ſtill viſible. From Rye it proceeds to Apledore, and then, by a curvature, forms the Iſle of Oxney, which is about ten miles in circumference, and conſiſts of a ridge of upland, running through its middle, and of low fertile marſhes towards the river.

The Weald of Kent, before mentioned, was formerly covered entirely with woods †. It has now many ſmall towns and villages; but is more thinly inhabited than the other parts of the county ‡, and of courſe much leſs cultivated.

Romney-Marſh is an extenſive tract of rich marſhland, at the ſouth corner of the county, originally in-

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† As a proof of this, the manors above the hill, which ſeparate the middle of Kent from the Weald, have many of them a long ſlip of land each, reaching ten or twelve miles into the Weald; which farms pay quit-rents to them. *Note by a Middle Kent Farmer.*

‡ I do not think it leſs populous than the beſt cultivated parts of Eaſt Kent; which, conſiſting of large farms, the harveſt-work of which, hoeing, &c. is done by labourers from other parts; whereas in the Weald it is otherwiſe; for being parcelled out generally into ſmall farms, the whole work is done by the reſident labourers and the farmers themſelves: and this of courſe is in favour of its population. *Note by the ſame Middle Kent Farmer.*

The public are much obliged to this Gentleman for a great number of very ſenſible and pertinent remarks; but in this inſtance, reſpecting the population of the Weald not being leſs than the beſt cultivated parts of Kent, he is certainly miſtaken. *Editor.*

cloſed

cloſed from the ſea, by a ſtrong wall, thrown up between the towns of Romney and Hythe.

Much of the Iſle of Thanet was naturally very thin light land; but the greater part of it having belonged to the Religious, who were the wealthieſt and moſt intelligent people, and the beſt farmers of the time, no pains or coſt were ſpared to improve the ſoil. The ſea furniſhed an inexhauſtible ſupply of manure, which was brought by the tides to all the borders of the upland, quite round the iſland; and moſt likely was liberally and judiciouſly applied by the Monks and their tenants; and their ſucceſſors to the preſent time, have not neglected to profit by their example. Owing to theſe circumſtances, Thanet always was, and moſt likely always will be, famous for its fertility; and the Monkiſh tale of Thanet's deriving its ſuperior fruitfulneſs from its having been the aſylum of St. Auguſtine, is not ſo far from the truth as it may at firſt appear. Old hiſtorians ſaid, "Felix tellus Tanet ſua "fecunditate;" and modern writers of huſbandry ſpeak of it as one of the fineſt gardens in the kingdom.

In ſhort, is there another diſtrict in Great Britain, or in the world, of the ſame extent, in ſuch a ſtate of cultivation,—where the farmers are ſo wealthy and intelligent, where land, naturally of ſo inferior a quality, is let for ſo much money, and produces ſuch abundant crops?

The whole iſland conſiſted formerly of ten pariſhes, *viz.* 1. St. Giles, *alias* Sarre, now united with 2. St. Nicholas at Wade; 3. Monkton; 4. Birchington; 5. Woodchurch; 6. Minſter; 7. St. John the Baptiſt; 8. St. Peter the Apoſtle; 9. St. Laurence; and, 10. Stonore; and it contains about 3500 acres of excellent marſh land, and 23,000 acres of arable: all the lower part of the latter bordering upon the marſhes, and ſome parts of the hill, where there is a good depth of earth, are exceedingly productive;

ductive; and the principal part of the remainder, altho' naturally a poor thin light mould on a chalky bottom, is made exceedingly fertile by the excellence of the ſyſtem under which it is cultivated. By an exact account taken of Minſter, in Thanet, January 1, 1774, there were found to be in that pariſh 149 houſes, 696 inhabitants, *viz.* 359 males, and 337 females: of theſe, in ſixteen farm-houſes, inhabited by tradeſmen, labourers, and widows, there were 249 males, and 280 females. The average number of inhabitants, male and female, to each farm-houſe is 10,4375; to each of the other houſes 3,9774; and to the whole number of houſes 4,67711. And by another account taken in 1773, of St. Lawrence, including Ramſgate which contains more than two-thirds of the houſes and inhabitants of the whole pariſh, there were found in that pariſh 699 houſes and 2726 inhabitants. And again in 1792, there were found 825 houſes, and 3601 inhabitants: which is an increaſe of 126 houſes, and of 875 inhabitants in that pariſh in nineteen years. The population in the latter period 4,369 per houſe.

That part of the county uſually called Eaſt Kent, is of two kinds; one very open and dry, the other much incloſed with woods and coppices. The open part lies between the city of Canterbury and the towns of Dover and Deal; and the incloſed part of the tract extends from Dover, by Eleham and Aſhford, to Rocheſter in length, and from the Iſle of Shepey to Lenham, &c. in breadth. The chief of the woodlands of Eaſt Kent are diſperſed between the great road from Rocheſter to Dover, and the chalk-hill that runs from Folkſtone by Charing to Detling.

Theſe woods furniſh the country with fire-wood, tillers for huſbandry uſes, and the dock-yards with timber for ſhip-building; but the moſt material part of their produce is the immenſe quantity of hop-poles cut out for the neighbouring plantations.

All that part of Eaſt Kent which lies within the vicinity of the towns of Faverſham, Sandwich, and Deal, is moſtly arable, extremely fertile, and under the moſt excellent ſyſtem of management; which will be deſcribed in its proper place.

The Iſle of Shepey is ſeparated from the reſt of the county by an arm of the ſea, called the Swale, navigable for ſhips of 200 tons burthen. It is ſaid to have derived its name from the number of ſheep that were continually feeding on it. It is about eleven miles in length, and eight in its greateſt breadth, and contains the pariſhes of

1. Minſter, with the ville of Sheerneſs;
2. Queenborough, which ſends two members to parliament;
3. Eaſt Church;
4. Warden;
5. Leyſdown;
6. Elmley, and its Iſle;
7. Harty, and its Iſle.

" The land of this iſland riſes from the ſhores of the " rivers, on the ſouth-eaſt and weſt bounds of it, towards " its center; but on the north ſide, it ſeems, by the height " of its cliffs, to have once extended much farther. The " cliffs are in length about ſix miles, and gradually de- " cline at each end; the more elevated parts continuing " about two-thirds as far as they extend; and they are " at the very higheſt of them about Minſter, not leſs " than ninety feet in perpendicular height above the " beach or ſhore; and, conſiſting of clay and being " waſhed at their baſis by the tides which beat againſt " them, more eſpecially when driven by ſtrong north- " eaſt winds, they are continually waſhing and falling

" down upon the ſhore: and ſo great is the loſs of land " at the higheſt parts, that ſometimes near an acre has " ſunk down in one maſs from that height, upon the ſea-" ſhore below. Some farms have loſt many acres within " theſe few years." *Haſted's Kent.*

About four-fifths of this iſland conſiſts of graſs land, of two ſorts; namely, marſh-land and upland paſture: the former has a very liberal ſhare of rich and good fatting land; but great part of the latter is very poor breeding land, that will hardly ſupport an ewe and an half per acre. Moſt of the arable land is exceedingly fertile in wheat and beans, eſpecially towards the north ſide, in the pariſhes of Minſter and Eaſt Church.

" The incloſures on the hills are ſmall, and are ſur-" rounded with thick hedge rows of elm; and the whole " of the country is exceedingly pleaſant in fine weather, " being interſperſed with hill and dale, and frequent " houſes and cottages. The roads throughout the iſland " are very good all the year, owing to the great plenty " of gravel and beach, and but little wear in it. The " proſpects are very pleaſing and extenſive on every " ſide.

" There is hardly any coppice-wood throughout the " whole of it. There are ſome ſmall furze grounds and " buſhy ſhaws on the hill, which afford ſhelter for many " hares, and a few pheaſants and partridges. Good freſh " water is very ſcarce in moſt parts of the iſland: be-" tween Eaſt Church and Minſter there are a few " ſprings, and notwithſtanding they riſe very near the " ſea, the water is perfectly good and freſh.

" The air is very thick, and much ſubject to noxious " vapour, ariſing from the vaſt quantity of marſhes in " and near it, which makes it very unwholeſome; inſo-" much, that few people of ſubſtance live in it, eſpeci-

" ally in the low land marſhy parts, where the inhabit-" ants are few indeed, and conſiſt chiefly of cookers.

" The garriſon and dock of Sheerneſs, its environs, " and town of Queenborough, the reader, however, will " except from this obſervation; where there are many " gentlemen of property and ſubſtance conſtantly reſi-" dent." *Haſted's Kent.*

The cliffs on the north ſide of this iſland belong to the three manors of Minſter, Shurland, and Warden; the owners of which let them out to the proprietors of the copperas works, who employ the neighbouring poor to collect the pyrites, or copperas ſtones from the ſhore, and which they depoſit in heaps on the cliff, at the rate of one ſhilling per buſhel for their labour, until a ſufficient quantity is procured to load a veſſel, to take it away. The liberty of collecting the copperas on the ſea-ſhore, is let by the lords of the manors for ſixty pounds per annum.

The weſtern part of this county conſiſts of a great variety of ſoils and ſyſtems of management. It is much more incloſed than the eaſtern part, and produces more timber and underwood.

The beſt cultivated is the north ſide of the diſtrict, from Rainham to Dartford: a tract of five or ſix miles in breadth. Parallel to this is a ſpace of like breadth, of exceeding cold, ſtiff, flinty clay, which is generally ploughed with ſix horſes: this is the flat top of the chalk-hill that runs from the ſea, by Folkſtone, through the county, to the borders of Surrey, near Weſterham. The ſoil of this ſlip of land is nearly alike, and is but of ſmall value, on account of the great expence of cultivation.

It is the higheſt land in the county, and is, from thence, by ſome called The Hog's Back of Kent. Between this hill and the borders of the Weald and county of Surrey, is an incloſed country, with much gentle hill and dale, the hills ſhelving in almoſt every direction, with ſeveral varieties of the ragſtone ſoils. This part produces great quantities of hops and fruit, with ſome corn and graſs; alſo timber and underwood, and has many pieces of common and waſte land *.

The upper part, or weſt end, of this diſtrict, is alſo much incloſed with many coppices of timber and underwood: great part of the latter goes to the metropolis, in different kinds of faggots. The corn and hay that are not conſumed in the neighbourhood, go likewiſe for the moſt part to London.

The Weald. This diſtrict of the county was in ancient times an immenſe wood or foreſt, inhabited only by herds of deer and hogs, and belonged wholly to the King. By degrees it became peopled, and interſperſed with villages and towns; and by piece-meal, was for the moſt part cleared of its wood, and converted into tillage and paſture. There are, however, ſome woodlands ſtill in their original ſtate.

The reputed boundary of the Weald begins at the margin of Romney Marſh, and runs along the top of the Ragſtone-hill, above the churches of Kingſnorth, Great Chart, Pluckley, Sutton, Linton, Hunton, Yalden, acroſs the Medway by Teſton and Wateringbury. From thence it proceeds by Hert's Hill, River-Hill, Idle-Hill, to Welleſtreet, on the borders of Surrey, and then, in union with the boundary lines of the county of Suſſex, taking in the Iſle of Oxney, goes on to Apledore and the borders of Romney Marſh. It is ſomewhat remark-

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* The inhabitants divide the county into three parts, Eaſt, Middle, and Weſt Kent: and, according to the ancient provincial adage, Weſt Kent is healthy, but not wealthy; Eaſt Kent is wealthy, but not healthy; but Middle Kent is both healthy and wealthy.

Note by a Middle Kent Farmer.

Perhaps more fanciful than true. *Editor.*

able, that the ſloping part of the ſtone-hill, which ſeparates the Weald from the ragſtone ſhelf above, ſhould be ſo thickly covered with villages, whoſe churches ſtand about half way up the ſlope of the hill; while the neighbouring chalk hill-ridge, which ſeparates the ragſtone ſhelf from the hill above it, has not a ſingle village or church upon it*. The ſtone-hill, in the extent of between twenty and thirty miles, has ten or twelve pariſh churches upon it.

Romney Marſh is a ſpacious level of exceedingly rich land, lying at the ſouth corner of the county. Its ſhape is nearly that of a parallelogram, whoſe length from the foot of the hill at Aldington to the ſea-ſhore, between Dengeneſs and Rye, is about twelve miles; and breadth, from the borders of the Weald of Kent by Warehorn, to the ſea-ſhore, between Romney and Dimchurch, is nearly eight miles. It contains the two corporate towns of Romney and Lydd, and ſixteen other pariſhes. The quantity of land contained in this level, that is within the county of Kent, is about forty-four thouſand acres. The adjoining level of Guilford Marſh is, the greater part of it, in the county of Suſſex.

It is divided into three ſeparate diſtricts; viz. Romney-Marſh, which contains about twenty-four thouſand acres; Walland-Marſh about twelve thouſand, and Denge-Marſh about eight thouſand acres †. Harris, in his hiſtory of Kent, in ſpeaking of Romney Marſh, obſerves, "that it was the firſt land which was inned or gained "from the ſea in Britain. For the laws, ſtatutes, and "ordinances for the conſervation of this marſh, are "(like our common laws) without any known original;

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* This is accounted for by the great fertility of the ſoil on the one, and the want of it on the other. *Note by a Middle Kent Farmer.*

† Vid. Claus. 35. K. H. 3. D. inter M. 6 and 7, in the Tower Records; alſo, *Dugdale on Embankment.*

" being at firſt conſtitutions, probably made by ſome, " even by the old Britiſh Kings, or rulers in Kent, as " well as by the Saxons during the Heptarchy. For in " the thirty-fifth year of the reign of Henry the Third, " they are called ancient and approved cuſtoms." This Marſh is defended from the ſea by an immenſe bank of earth (called Dimchurch Wall) of more than three miles in length. The face next the ſea is covered with common faggot-wood, and hop-poles faſtened down by oak piles and overlaths, which prevent the ſea from waſhing away the earth. The ſupport of the wall, and the drainage of this marſh, amount to the ſum of four thouſand pounds per annum; which ſum is raiſed by a ſcot per acre, on the whole level of Romney Marſh. The other two diſtricts of Walland and Denge Marſh, are each ſcotted ſeparately, to defray their own expences of drainage, &c.

The land is not all equally good; ſome, chiefly near the ſea-ſhore, is a poor ſandy gravel, which bears a little graſs in the ſpring, that ſoon burns up in the ſummer; and ſome, along the foot of the hills which ſurround the landſide of the Marſh, is wet and poor. But the great maſs of land, the center of the whole Marſh, is wonderfully rich and fertile.

There are but few oxen fed here, compared with what other rich marſh lands uſually keep: but the number of ſheep bred and fed, exceeds perhaps any diſtrict of the like extent in the kingdom.

The ſcattered inhabitants of the Marſh are chiefly lookers and bailiffs, whoſe employers reſide in the upland parts of the county, or in the neighbouring towns.

The fences are either ditches, or oak poſts and rails; there being but very few hedges or trees in the Marſh, except a few about ſome of the villages. Immenſe quantities of oak poſts and rails are annually brought out of the woodlands of the Weald of Kent, for the repairs of the fences.

SECT. III. — *Climate.*

THE proximity to the German Ocean and Britiſh Channel, renders this county very ſubject to cold ſea-winds, which often, near the ſhore in the ſpring of the year, injure the tender ſhoots of corn and herbage of every kind; eſpecially when, after a few days of fine warm weather, a north-eaſt wind ſucceeds.

The prevailing winds of this county are, north-eaſt and ſouth-weſt. When the former ſets in and continues for any length of time, which is often the caſe in winter, a ſevere froſt is always the conſequence; the air is then exceedingly keen and ſharp; ponds are frozen to the depth of ten or twelve inches; and turnips are deſtroyed. The ſouth-weſt part of the county is more incloſed; and, being under ſhelter of the ridge of hills running from Folkſtone-hill to Wrotham, &c. is ſomewhat warmer as to climate; but the ſoil in this part being much of it a cold moiſt clay, the harveſt is later than in thoſe parts of the county which are more expoſed to the winds before mentioned.

The effect of the climate on Agriculture will perhaps be beſt ſhown, by ſtating the time when the wheat harveſt commences; which, in the moſt early parts of the county (viz. the Iſles of Shepey and Thanet) is, in a very forward harveſt, by the 20th of July, and in general in the laſt week of that month; in Eaſt Kent, between Canterbury and Dover, about ſix or ſeven days later, according to ſoil and ſituation; and ſtill later, by ten or twelve days, on the cold hills which run through the middle of the county.

SECT. IV. — *Soil and Surface.*

ISLE OF THANET.

THE bottom ſoil of the whole iſland, or what modern writers in huſbandry call the ſubſoil, is a dry, hard, rock chalk. The tops of the ridges are about ſixty feet above the level of the ſea, and are covered with a dry, looſe, chalky mould, from four to ſix inches deep: it has a mixture of ſmall flints, and is, without manure, a very poor ſoil. The vales between the ridges and the flat lands on the hills, have a depth of dry loamy ſoil, from one to three feet, with leſs chalk, and of much better quality.

The weſt end of the iſland, even on the hills, has a good mould, from one to two feet deep, a little inclining to ſtiffneſs; but the deepeſt and beſt ſoil is that which lies on the ſouth ſide of the ſouthernmoſt ridge, running weſtward from Ramſgate to Monkton: it is there a deep rich ſandy loam, and moſtly dry enough to be ploughed flat, without any water-furrows. The ſoil of the marſhes is a ſtiff clay, mixed with ſea-ſand and ſmall marine ſhells.

EAST KENT.

The open part of the diſtrict between Canterbury, Dover, and Deal, is of various ſoils, no one pariſh or farm being perfectly ſimilar in all its parts. The principal ſoils are, 1ſt, Chalk; 2d, Loam; 3d, ſtrong Cledge; 4th, Hazel Mould; 5th, ſtiff Clay. Beſides theſe, there are ſome ſmall tracts of flints, gravel, and ſand.

The chalk-ſoils are of various depths; from three to ſix or ſeven inches of looſe, chalky mould, on a rock chalk bottom, and are moſtly found on the tops and ſides of the ridges of this diſtrict. At ſome places there is a little mixture of ſmall flints, and at others, of black light mould, provincially called Black Hover. This laſt, in an unimproved ſtate, is the worſt land in this diſtrict; and the whole of theſe chalky ſoils are much neglected, and conſequently of little value; but where they happen to be improved, by paring and burning, deſtroying the charlock, with good manure afterwards, they become very good land for turnips, barley, clover, and wheat; and ſome parts produce tolerable crops of ſainfoin.

The loamy ſoil is a very dry, ſoft, light mould, from ſix to ten inches deep, on a red ſoft clay, which is good brick-earth, and lies in a ſtratum of from three to ſeven feet deep, under which is generally a layer of chalky marl, and then the rock chalk. This ſoil is very good, ploughs light, and may be worked at all ſeaſons; and produces good crops, if well managed, of all ſorts of corn and graſs.

The ſtrong cledge is a ſtiff tenaceous earth with a ſmall proportion of flints, and, at ſome places, ſmall particles of chalk: it is from ſix to ten inches deep, on a hard rock chalk, and is found on the tops of the hills. When wet, it ſticks like birdlime; and when thoroughly dry, the clods are ſo hard as not to be broken with the heavieſt roll. It is very difficult to work, except when it is between wet and dry. This land, when well managed, and the ſeaſons are favourable for the work, produces good crops of wheat, clover, and oats; but when unkindly ſeaſons happen, and dry ſummers ſucceed, it is very unproductive.

The hazel mould is a light ſoil on a clay bottom, more or leſs mixed with flints and ſand. It is dry, and forms very kindly land for barley and wheat upon clover lays. Beans are ſometimes blighted on this ſort of land, as is wheat alſo on bean or pea-ſtubble, but more particularly the latter; for which reaſon wheat is very ſeldom ſown after peaſe.

The ſtiff clay lies on the tops of the higheſt hills. This ſoil is generally wet which ariſes only from the rains in winter; for the ſprings are above 300 feet deep on the rock chalk. It has at ſome places a layer of a yellow coloured clay between the ſurface mould and the rock.

Flints.—This land, or rather ſurface of ſtones, occurs only in ſmall tracts in the vallies about Dover and Stockbury, near Maidſtone. It conſiſts of beds of flints, with hardly any mould to be ſeen. This is very expenſive to plough; but, under good management, with plenty of manure, is very productive in wheat, barley, and beans. There is very little gravelly ſoil, and not much ſand in this diſtrict; a little of the latter, however, is ſeen in the vicinity of Hythe and Folkſtone. This is very light land to work, and excellent for turnips, barley, clover, wheat, peaſe, and potatoes.

The flat rich lands in the vicinity of Faverſham, Sandwich, and Deal, conſiſt of two ſorts of ſoil; namely, rich ſandy loam, with a greater or leſs mixture of ſand; and ſtiff clay, ſome of which, in the lower parts, is rather wet. The ſurface of the firſt is ſeven or eight inches deep, with a ſubſoil, varying in depth, of ſtrong loam, clay, or chalk. This ſoil is always ploughed with four horſes; is very dry and kindly to work at all ſeaſons, and no ridges or water-furrows are required. It produces great crops of wheat, beans, barley, oats, and peaſe, and ſometimes canary and radiſh.

The ſtiff wet clay is that which has a ſtrong clay bottom, or any ſubſtance that holds water. It lies low, is ſubject to land-ſprings, and of cloſe texture, ſo as not to admit a quick filtration of water.

This, when properly drained, and kept cleaned from weeds, and otherwiſe well managed in favourable ſeaſons, is excellent land, and produces good crops of wheat, beans, and canary; but is generally very expenſive to keep in good order.

ISLE OF SHEPEY.

Almoſt the whole of this iſle is a deep, ſtrong, ſtiff clay. Some parts are ſo very ſticky in the winter time, that theplough wheels get loaded with dirt in one maſs, ſo as to form the ſhape of a grindſtone, and are often overturned with the great weight of mould, collected unequally upon the wheels; on which account foot-ploughs are ſometimes uſed. The horſes ſhoes are frequently torn off, by the hinder foot ſtriking its ſhoe againſt the heel of the fore one, before it can diſengage itſelf from the ſoil. The beſt time to plough theſe ſoils, it is ſaid, is when they are thoroughly wet. Some of the upper parts of the iſland have a few gravelly fields; but thoſe are very wet in winter, and are rather ſtiff. The chief part of the upland paſture is a ſtiff clay, covered with ant-hills; it is very wet in winter, ſubject to burn in a dry ſummer, and to ſplit open to a great depth. The ſoil of the marſhes is alſo a ſtiff clay underneath; originally a ſediment of the ſea. Its ſurface for an inch or two in depth is a vegetable mould, much enriched from the land having been thickly covered with ſheep for a long ſeries of years.

WEST KENT.

The varieties of ſoil in this part are, 1. Chalk; 2. Loam; 3. Clay; 4. Gravel; 5. Sand; 6. Haſſock; 7. Pinnock; 8. Coomb; 9. Hazel Mould.

The chalky ſoils are found on the ſides of hills, and at different places along the borders of the Thames, between Dartford and Rocheſter: they are from five to ſeven or eight inches thick, of a looſe chalky mould, on a rock chalk bottom. Thoſe of the greateſt depth of ſurface, that are well cultivated with a due proportion of manure, are very productive in corn and ſeeds, and yield great crops of ſainfoin.

The loamy ſoils are found at different places, chiefly in the vallies. This land is of light tillage; and, when well managed, is very productive of corn, ſeeds, and hops; and is of various depths.

The clay ſoil is of two ſorts. That which lies at the top of the chalk-hills is much mixed with flints, is a cold ſoil, and ſo very tenacious, as to require ſix ſtrong horſes to plough an acre per day in winter; and when left unploughed till dry in the ſummer, it is hardly practicable to get through it with eight horſes; and ſometimes, in very dry weather, impoſſible. This ſort is from eight to fourteen inches deep on the rock chalk, and at ſome places a ſtiff yellow clay lies between.

The other ſort of clay is a cold, wet, ſtiff kind, with a ſmall mixture of ragſtone, and is chiefly found in the low grounds of the weſtern part of the country. Both ſorts are of ſmall value, being very expenſive to cultivate; and, except the ſeaſons are very favourable, they produce but poor crops. It ſometimes happens that this land yields a great crop of wheat; which, like a prize in the lottery, tempts the fortunate adventurer to try his luck again, with great loſs of labour and waſte of ſubſtance.

Gravelly ſoils are chiefly found about Dartford and Blackheath, which produce early green peaſe, turnips, winter tares, rye, peaſe, oats, and ſome wheat. Theſe gravels are from five to eight inches deep, with a ſubſoil of rocky gravel or ſand. There are other ſoils, called Gravel, in the lower part of this diſtrict, which are a mixture of the ſmall pieces of Kentiſh rag, ſand, and loam; the ſmall particles of ſtone predominating, give it the title of Gravel. This ſort produces, when well cultivated, good crops of turnips, oats, clover, and wheat.

The ſandy parts of this diſtrict are in general very poor, being moſtly of the black ſort, and are chiefly found on commons and heaths. There are ſome however in cultivation, which produce excellent turnips and corn.

Haſſock, or ſtone-ſhatter, is a ſoil, the ſurface of which is a mixture of ſandy loam, with a great portion of ſmall pieces of light coloured Kentiſh ragſtone. It is from ſix inches to a foot or two deep; the ſubſoil a ſolid rock of ſtone. This land produces great quantities of hops, apples, cherries, filberts; and likewiſe good turnips, potatoes, ſeeds, and corn; alſo much excellent hay on old graſs lands.

Pinnock. This land is very bad to till, and extremely poor. It is a ſticky red clay, mixed with ſmall ſtones; but although it is deemed poor for cultivation of grain, &c. yet it produces very fine cheſnut-wood, and filberts likewiſe grow well upon it. This ſort of land alſo lies upon the rock.

The Coomby ſoil of Weſt Kent is an extreme ſtiff moiſt clay, mixed with ſtones and flints of different ſorts. It ploughs ſo heavy as always to require ſix horſes, and ſometimes, when dry and hard, eight are neceſſary; even then, frequently not more than half an acre is ploughed in a day. This ſort of land is found in the parts about Seal and Wrotham, and is nearly the ſame as deſcribed under the title of Clay.

A fine hazel mould is found on the ſides of the hills, and in the vallies, at different places throughout the whole diſtrict.

THE WEALD.

The Weald of Kent has the reputation of being an entire maſs of clay; but, on examination, it is found to contain the following varieties of ſoil, namely, 1. Clay; 2. Hazel Mould; 3. Sand; 4. Ragſtone Gravel.

The clay is either ſtiff and exceedingly heavy, or a wet ſort, which ploughs ſomewhat lighter. The firſt is chiefly found on the eminences, or their ſloping ſides. The ſurface is about ſeven or eight inches deep, under which is a ſtratum of ſtiff yellow clay, about a foot or two thick, with a ſubſoil in ſome parts of excellent marl. The ſecond ſort of clay lies in the lower parts, is extremely wet after ſhowers of rain, and a long time in getting dry; which often occaſions a late ſowing, and a backward harveſt; and frequently the wheat ſeaſon is totally loſt. The furface of this land is ſeven or eight inches deep; the ſubſoil is at ſome places a yellow clay, and at others a ſoft ſandſtone rock, which is often uſed for mending roads. Four horſes with difficulty plough an acre per day in theſe ſoils. In ſome pariſhes bordering on Suſſex, the ploughing work is done by oxen; four or five pair are generally fixed to a plough, and do about the ſame quantity a day as four horſes.

The hazel mould is a clay ſoil of a drier nature, from having a conſiderable mixture of ſand; it ploughs light, and is the beſt land in the Weald.

Sandy ſoils are of two ſorts, black and white; the black is little regarded, but the white is much improved by marl and lime. The little there is of this ſoil in the diſtrict, produces turnips, barley, clover, and wheat, and the ſubſoil is the ſoft ſandſtone.

The ragſtone gravel is found only in ſmall patches; and is of little value in its preſent ſtate, being covered with furze, heath, and broom.

ROMNEY MARSH.

Almoſt the whole ſurface of this ſpacious level of fine marſh-land, is the ſediment of the ſea. It conſiſts chiefly of a ſoft loam and clay, with a greater or a leſs mixture of ſea-ſand; there are, however, near the ſea-ſhore, ſome ſmall tracts of blowing ſand, and ſome ſea-beach, which are of very little value.

The principal part of the ſoil being a fine ſoft loam, with a mixture of ſea-ſand, and having lain time out of mind in graſs, covered with ſheep in winter and ſummer, its turf is wonderfully thick and fine; and the graſs it produces is of a fattening quality, equal, if not ſuperior, to any in the kingdom. The other parts, which are inferior, are thoſe which have a leſs portion of ſea-ſand, and are a ſtiff clay; or thoſe which have too much ſand, or gravel, and are in conſequence apt to burn in dry ſummers; and theſe are the lands which are uſed as breeding grounds.

The ſubſoil is frequently ſeen in alternate layers of clay and ſand, and ſometimes beach and ſand.

SECT. V.—*Minerals.*

I cannot give a better account of this ſubject than by copying the words of the very ingenious hiſtorian* of this county, who has diligently ſought for every ſpecies of information.

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* Edward Haſted, Eſq.

" On the top of Shooter's Hill, in the pariſh of Eltham, " is a mineral ſpring, which is ſaid conſtantly to over- " flow, and never to be frozen in the ſevereſt winter. In " the pariſh of Bromley is another, which riſes at the foot " of a declivity, at a ſmall diſtance eaſtward from the Bi- " ſhop's palace. The ſoil through which it paſſes is " gravel, and it iſſues immediately from a bed of pure " white ſand. The courſe of the ſpring ſeems to be about " north north-eaſt and ſouth ſouth-weſt from its aperture; " its opening is towards the latter; and as Shooter's Hill " bears about north north-eaſt from its aperture, it pro- " bably comes from thence. The water of this ſpring " being found to be a good chalybeate, was, by the Biſhop's " orders, immediately ſecured from the mixture of other " waters, and incloſed, in hopes that it might prove be- " neficial to ſuch as ſhould drink it. Since which, " numbers of people, eſpecially of the middling and " poorer ſort, have been remarkably relieved by it from " various infirmities and diſeaſes, which were not only " afflicting, but ſome of them dangerous. Above Well- " Place, which is a farm-houſe in Penſhurſt Park, there " is a fine ſpring, called Kidder's Well; which, having " been chymically analyzed, is found to be a ſtronger " chalybeate than thoſe called Tunbridge Wells.

" The pariſh of Penſhurſt, as well as the neighbouring " ones, abounds in veins of iron ore; and moſt of the " ſprings in them are more or leſs chalybeate.

" The whole neighbourhood of Tunbridge Wells " abounds with ſprings of mineral water; but as the " properties of all are nearly the ſame, only thoſe two, " which at the firſt diſcovery of them were adjudged the " beſt, are held in any particular eſtimation.

“ Theſe two wells are incloſed with a handſome ſtone-
“ wall. Over the ſprings are placed two convenient ba-
“ ſons of Portland ſtone, with perforations at the bottom,
“ through which they receive the water; which at the
“ ſpring is extremely clear and bright. Its taſte is ſteely,
“ but not diſagreeable; it has hardly any ſmell, though
“ ſometimes, in a denſe air, its ferruginous exhalations
“ are very diſtinguiſhable. In point of heat, it is in-
“ variably temperate; the ſpring lying ſo deep in the
“ earth, that neither the heat of ſummer nor the cold of
“ winter affects it.

“ When this water is firſt taken up, its particles con-
“ tinue to reſt till it is warmed to nearly the heat of the
“ atmoſphere; then a few airy globules begin to ſeparate
“ themſelves, and adhere to the ſides of the glaſs, and in
“ a few hours a light copper coloured ſcum begins to
“ float on the ſurface; after which an ochreous ſediment
“ ſettles at the bottom. Long continued rains ſometimes
“ give the water a milky appearance; but do not other-
“ wiſe ſenſibly affect it. From the experiments of dif-
“ ferent phyſicians, it appears, that the compotent parts
“ of this water are ſteely particles, marine ſalts, an oily
“ matter, an ochreous ſubſtance, ſimple water, and a vo-
“ latile vitriolic ſpirit too ſubtile for any chymical ana-
“ lyſis. In weight, it is in ſeven ounces and a quarter, four
“ grains lighter than the German Spa (to which it is
“ preferable on that account) and ten grains lighter than
“ common water. It requires five drops of oleum ſul-
“ phuris, or elixir of vitriol, to a quart of water, to pre-
“ ſerve its virtues to a diſtance from the ſpring. This
“ water is ſaid to be an impregnation of rain in ſome
“ of the neighbouring eminences, which abound in
“ iron mineral; where it is further enriched with the
“ marine ſalts and all the valuable ingredients which
“ con-

" conſtitute it a light and pure chalybeate; which inſtantly ſearches the moſt remote receſſes of the human frame, warms and invigorates the relaxed conſtitution, reſtores the weakened fibres to their due tone " and elaſticity, removes thoſe obſtructions to which the " minuter veſſels of the body are liable, and is conſequently adapted to moſt cold chronical diſorders, lowneſs of ſpirits, weak digeſtions, and nervous complaints.

" At Sydenham, in the pariſh of Lewiſham, there are " ſome ſprings of medicinal purging water, which, from " their nearneſs to Dulwich, in the county of Surry, bear " the name of Dulwich Wells; though there are ſome " of the ſame kind in that pariſh, but they are of an inferior quality, and not ſo plentiful in quantity.

" Theſe ſprings in this hamlet are at the foot of a " hill, about twelve in number. The hill and ground " adjoining is a ſtiff clay, with ſome wood upon it. " Theſe are next to thoſe of Epſom, being diſcovered " about the year 1640.

" The hole dug is about nine feet deep, and the water " about half a yard deep; being emptied every day. " The bottom is a loam, as is the hill; and where the " water iſſues in, is found the lapis lutoſo-vitriolicus, " which glitters with vitriolic ſparkles, and is divided " into parcels by the trichitis.

" This water purges very quick; it is bitter, like the " Epſom waters; it curdles with ſoap or milk, equally " to them, and much more than thoſe at Richmond.

" Dr. Allen publiſhed his account of theſe wells in the " year 1699; though there had been before, in 1681, a " treatiſe on them, publiſhed at London, in 12mo, by " Dr. John Peter, Phyſician, under the name of Lewiſham, vulgarly called Dulwich Wells, in Kent; in

" which were ſhewn the time and manner of their diſ-
" covery, the minerals with which they are impregnated,
" and the ſeveral diſeaſes experience has found them
" good for, with directions for the uſe of them; and
" in No. 461, p. 835, of the Philoſophical Tranſactions,
" is an account of a new purging ſpring at the Green
" Man at Dulwich, 1739, by Mr. Martyn.

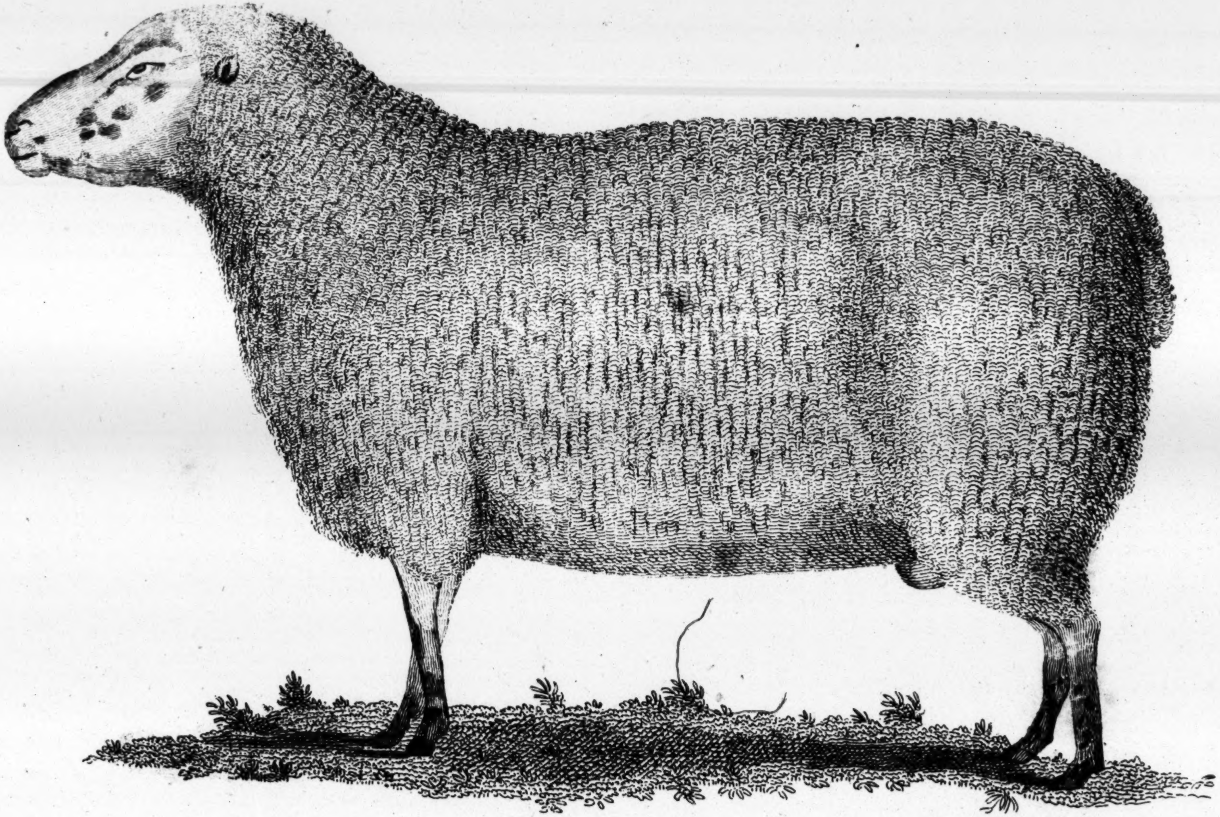
" Near the weſt end of the bridge, oppoſite the Store-
" keeper's houſe of the royal powder-mills at Faverſham,
" there is a ſtrong chalybeate ſpring, which on trial has
" been proved to be nearly equal to thoſe of Tunbridge
" Wells."

SECT. VI. — *Water.*

THIS county poſſeſſes advantages ſuperior to any other in point of navigation, from its extenſive range of ſea-coaſt, and the two great navigable rivers, the Thames and Medway, beſides thoſe of leſs note, the Stour and the Rother. The two former are navigable for the largeſt ſhips to Woolwich and Chatham, and for ſmall craft to a very great diſtance. " The Stour and the Rother ad-
" mit coaſting-veſſels to Sandwich and Rye. The
" Ravenſborn, the Cray, and the Darent, are ſmall
" creeks or ſtreams that fall into the Thames; the firſt
" at Deptford, the others in one channel at Longreach.
" Moſt of the marſh-land of this county is along the
" margin, or at the mouths of theſe rivers, or has been
" formerly covered with the waters of ancient havens
" and ports, now in a great meaſure obliterated. Theſe
" rivers likewiſe have formed iſlands towards their
" mouths. Thus the Thames and the Medway, at their
" extremities, contributed their waters jointly to the ſe-
" paration of the Iſle of Graine from the main land, but

" the

[illegible]



A ſmall SOUTH DOWN RAM belonging to Mr. Boys.

Live Weight July 1793. 169 lb.

H. Boys Delt

Neele sc. Strand.

" the channel is now filled up. The Swale, one of the " mouths of the Medway, in like manner cuts off " Shepey from the continent of Eaſt Kent. Graine is " throughout low and marſhy, and is about three miles " and a half long, and two and a half wide."

Haſted's Kent.

CHAPTER II.

STATE OF PROPERTY.

SECT. I. — *Eſtates.*

THE property in land in this county is very much divided, there being few extenſive poſſeſſions but what are interſected by other perſons property ; and, according to Mr. Haſted, " this diſtribution of freeholds " cements a good underſtanding between the gentry and " yeomen, their lands being everywhere ſo much inter-" mixed one with the other, obliges them to a mutual " civility for their own intereſt and convenience ; nor are " the latter ſo much dependent on the gentry as the inha-" bitants of moſt other counties, by copyhold or cuſtomary " tenures, of which there are very few in it ; which ſtate " of freedom is productive of good-will and kindneſs from " the one ſort to the other ; there being no part of the

" kingdom where the people are more quietly governed, " or ſubmit with more pleaſure to the laws and magiſ- " tracy of the country."

The number of yeomanry of this county ſeems annually on the increaſe, by the eſtates which are divided and ſold to the occupiers. There is no deſcription of perſons who can afford to give ſo much money for the purchaſe of an eſtate as thoſe who buy for their own occupation. Many in the eaſtern part of this county have been ſo ſold, within theſe few years, for forty, and ſome for fifty years purchaſe, and upwards.

" The number of freeholds in the county of Kent, are " ſuppoſed to be about nine thouſand; which is ſurprizing, conſidering the large poſſeſſions which the two " epiſcopal dioceſes, the two cathedrals of Canterbury " and Rocheſter, and ſeveral of the colleges of Oxford " and Cambridge, and other bodies corporate, are entitled to in it; which, at a rack-rent, are computed at " upwards of 80,000 *l.* per annum, beſides parſonages " and portions of tithes." *Haſted.*

SECT. II. — *Tenures.*

" THE ſocage tenures of ancient demeſne, and gavelkind, prevail over this county. The former of which " conſiſts of thoſe lands and manors which were the " ancient inheritance of the crown, and actually in the " hands of it in the time of King Edward the Confeſſor, " or William the Conqueror; and which appear to have " been ſo by the great ſurvey of Doomſday, in the Exchequer, in which they are entered, under the title of " Terra Regis.

" Moſt of theſe have been, from time to time, granted " out to private ſubjects, but the tenants of them under " the crown, were not all of the ſame order and degree;

"ſome of them continued for a long time in abſolute "villeinage, dependent on the will of the lord; and thoſe "that ſucceeded them in their tenures, now differ from "common copyholders in only a few points. Others were "in a great meaſure enfranchiſed by the royal favour, "holding their lands by the better ſort of villein-ſervices: all which are now changed into pecuniary rents; "in conſideration of which they had many immunities "and privileges granted to them; ſuch as to try the "right of their property in a peculiar court of their "own, called a court of ancient demeſne; not to pay "toll, or taxes; not to contribute to the expences of "the knights of the ſhire; not to be put upon juries, "and the like.

"The latter of theſe, the ſocage tenure of gavelkind, prevails in general over this county; to which, "within the bounds of it, there are certain ſpecial cuſtoms inherent, called anciently Conſuetudines Kantiæ, "being the common law of Kent.

"Various are the opinions of our antiquaries, concerning the etymology of the word Gavelkind; but "that which is moſt natural, and beſt ſupported both by "reaſon and authority, is drawn from the nature of the "ſervices.

"According to this expoſition of the term, it is derived from the Saxon word GAFOL, or GAVEL, which "ſignifies rent, or a cuſtomary performance of huſbandry works; and, therefore, they called the lands, which "yield this kind of ſervice, Gavelkind; that is, the "kind of land that yields rent.

"If this is the true etymology, it is plain that gavelkind, taken in the ſtricteſt ſenſe of the word, denotes "the tenure of the land only; and that the partibility, "and other cuſtomary qualities, are rather extrinſic "and accidental to gavelkind, from the cuſtomary laws "of the place, than neceſſarily comprehended under "that term.

"Gavelkind lands are not peculiar to the county of "Kent; there are many inſtances of them in different "parts of this realm, which are ſaid to partake of the "nature and cuſtom of gavelkind; a ſtile they have aſſumed "ſince the diſgavelling ſtatute of the 31ſt of "King Henry VIII.; before which they are never "mentioned as gavelkind land, but only that they "were ſuch as were partible, and had been parted: and "ſo peculiar is this tenure eſteemed to be to this county, "that, whereas in all other places, the claimant is "obliged to ſet forth particularly the cuſtom whereon "he founds his right to the lands, as being of the nature "and tenure of gavelkind; in this county it is ſufficient "to ſhew the cuſtom at large, and to ſay that the "lands lie in Kent, and are of the nature of gavelkind; "of which all lands lying in the county are preſumed to "be, till the contrary be made to appear. And this is "the reaſon why the books called Gavelkind in this "county, by a higher appellation that is given to any "other cuſtom, viz. the common law of Kent."

Haſted's Kent.

CHAPTER

CHAPTER III.

BUILDINGS.

SECT. I. — *Houſes of Proprietors.*

THERE are between twenty and thirty noblemens ſeats in this county, beſides many elegant and large manſions of the gentry, and abundance of modern built houſes of great value belonging to merchants, and other wealthy tradeſmen of the metropolis, &c. To give a particular deſcription of every ſeat and manſion, will very far exceed the limits of this work, and take more time than is allowed for completing it. I hope, therefore, that I ſhall be excuſed in referring the Honourable Board and reader to Haſted's hiſtory of this county, where every ſeat, manſion, and park, are ably and elegantly deſcribed.

SECT. II. — *Farm-Houſes and Offices.*

THERE are ſome few inſtances of modern built houſes for the uſe of the farmers; but the chief part are very old, large, and ill contrived, the upper ſtories generally projecting over the under ones. Theſe old houſes are, in many parts of the county, built with cheſnut, where now no cheſnut-timber is to be ſeen: the offices about them are as badly contrived as the houſes themſelves. This part of the rural œconomy of this county ſtands much in need of a reform. On moſt of the middle and ſmall ſized farm-houſes and offices, thatch is the common covering; which is put on, particularly in the eaſtern part, much worſe than in any other part of the kingdom that has fallen under my view. The ſtubble of wheat is raked up for this purpoſe; which being often done in the winter, when by rainy ſeaſons it is become half rotten, of courſe cannot laſt a long time on a building. The farm-houſes in the Iſle of Thanet are, in general, exceedingly neat and convenient; and from ſome of them are ſeen the moſt beautiful proſpects of Eaſt Kent, the Downs, and coaſt of France.

SECT. III. — *Cottages.*

THE cottages are of ſuch various kinds, that it is impoſſible to give any other account of them, than to ſay that they are in general comfortable habitations for farming labourers. They are built, ſome with bricks and tiles; but the greater part, eſpecially of the oldeſt, with plaiſtered wall, and are covered with thatch. There are very few but what have a ſufficient plot of land annexed to them for the growth of vegetables; and a great many in ſome parts of the county afford keep for a cow. Thoſe, which have a garden of from twenty to thirty perches, uſually let from 2*l.* to 3*l.* per annum, ſome more and others leſs, according to ſituation and other circumſtances: thoſe which have land enough to keep a cow, let from 4*l.* to 5*l.* per annum.

Some writers on this ſubject have taken conſiderable pains to ſhew, it would be a great advantage for every cottager to have two or three acres of land, that they might each keep a cow and two or three hogs, and raiſe plenty of potatoes: but gentlemen who recommend this, in their humanity to the individuals who are to be benefitted, loſe ſight of what would be the miſchievous effects to the community, by the loſs of their labour. I will venture with great confidence to predict, that if every farming cottager, or, in other words, every farmer's labourer in the kingdom, could be ſo accommodated, a famine would inevitably be the conſequence in a ſhort ſpace of time; for my experience has taught me to obſerve, that few men will labour hard any farther than neceſſity compels them to do ſo; and it is clear, that any cottager who has two or three acres of land, keeps a cow, and two or three hogs, and grows plenty of potatoes, is not much neceſſitated to labour for others.

CHAPTER IV.

MODE OF OCCUPATION.

SECT. I. — *Size of Farms, and Character of the Farmers.*

THE ſize of farms is generally greateſt in the pooreſt parts of the county. Many ſmall farms, of from ten to fourteen acres each, are found in the richeſt ſoils, and few there exceed 200 acres; but where land is poor, there are many as large as 300 acres, and ſome 600, or more. Many writers on agriculture have condemned the practice of adding ſmall farms together, under an idea that it tends to increaſe the price of proviſions,

viſions, and decreaſe population; but from all the obſervations that I have made for the laſt twenty years, I am perſuaded that the large farmers, generally ſpeaking, make the land more productive in the groſs than the ſmaller farmers do, becauſe they generally make greater exertions in improving their land; and of courſe, large farms muſt have a tendency to lower the price of proviſions. It is very true, that a number of ſmall farmers on a given tract of land, will rear more poultry and eggs, and perhaps make more butter, than one farmer on the ſame quantity of land; but the one farmer will raiſe more mutton, wool, beef, and pork, and grow moſt corn; and will employ a much greater number of labourers than the ſmall farmers on the ſame tract of land; and conſequently population will be increaſed rather than be diminiſhed by large farms. At any rate, there ought to be no reſtraint, as ſome writers have recommended, in the letting of farms; for if it were ſo, men of large capitals could not be accommodated; by which many of the moſt ſpirited improvers in agriculture would be driven perhaps out of the kingdom; and if not, their money would either lie idle, or be employed in ſome other purſuit with much leſs advantage to the community.

The occupiers of the ſmall farms in general, work themſelves much harder, and fare worſe than other labourers, or many journeymen mechanics. Thoſe of the higher claſs, the large occupiers and principal yeomanry, are a very reſpectable claſs of ſociety, and have a great weight in the political ſcale of the county.

Mr. Haſted ſays, "The yeomanry which in moſt "other parts of the kingdom is confined to the common "people only, as indeed the name ſhews, for it is ſo "called from the Saxon word GEMEN, which ſignifies

" common, is extended much higher in Kent; for it " here likewiſe comprehends the principal farmers and " landholders, who, either from their education or intercourſe of life, are not eſteemed by the gentry of " equal rank with themſelves; and yet, in point of wealth " and poſſeſſions, they are frequently ſuperior to many of " them, who though they write themſelves Yeomen, " yet are uſually and very properly ſtyled Gentlemen-Farmers; for beſides the largeneſs of their holdings, " which are from 400*l.* to 1200*l.* per annum, they have, " in general, good eſtates and freeholds of their own, " and ſome, even to the amount of what they hire."

Beſides the yeomen, before mentioned, there is an infinite number of farmers, not having or poſſeſſing a freehold, who occupy from 40*l.* to 300*l.* or 400*l.* a year. The ſmaller farmers are in general a very induſtrious and ſober ſet of men, fare hard, and live with great frugality. The great occupiers, who have property in ſtock of from 1 to 2, or 3000*l.* live, as they ought, more at their eaſe; but as to making of fortunes by farming, there is no ſuch thing that ever came to my knowledge; the competition is too great to admit of it; inſtances have been known of great wealth being left by old farmers, who have never had any other occupation; but then they have, perhaps, had no family, or never ſpent any thing beyond the expences of a common labourer, ſo that the fortune has been ſaved by the ſimple operation of compound intereſt; or, perhaps, theſe perſons have held their farms for a long ſeries of years, at a rent of great favour.

SECT. II. — *Rents.*

THERE are many farms which let as low as 5*s.* per acre; and others, at every other price between that ſum and 30*s.*; while ſome particular fields of rich land, in the vicinity of great towns, as paſture, garden, hop-ground, &c. may let as high as 3, 4, or 5*l.* per acre.

The rent is, I believe, invariably paid in money; all ancient cuſtoms of paying in kind, and perſonal ſervices, being aboliſhed or compounded for, except in ſome trifling caſes; where a landlord ſtipulates for a load or two of ſtraw annually, or the carriage of a few coals, the keep of a young hound, or ſome ſuch thing of little conſequence.

The payments are uſually made half-yearly; that which is due at Lady-day, at Midſummer; and that due at Michælmas, at Chriſtmas; generally allowing the tenant one quarter's credit. In ſome few inſtances, a half year is given them, paying one half year under another. Perhaps I may not be very wide of the truth, if I ſtate the average rent of the county to be 15*s.* per acre; which will make for the whole, 896,000 acres, 672,000*l.*

SECT. III. — *Tithes.*

IN many parts of this county, the tithes are collected in kind; in others, they are compounded for on terms which will be hereafter mentioned.

In the Iſle of Thanet, the whole of the rectorial tithes are collected, but the vicarial are chiefly compounded for; part is neither collected nor compounded at preſent, nor has been for ſome years, owing to a litigation about the right to the tithe of turnips, &c. In the eaſtern part of the county, the rectorial are almoſt invariably paid in kind, and the vicarial moſtly compounded for, excepting in ſome inſtances, where there are diſagreements between the vicars and their pariſhioners.

The rich lands about the towns of Faverſham, Sandwich, and Deal, have their tithes chiefly collected. In the Iſle of Shepey, the ſame. There have been ſome diſagreements reſpecting the vicarial tithes in the pariſh of Minſter, which are now ſettled, by paying 2*s.* per pound on the rent, and an addition of 6*d.* per acre for uplands, 9*d.* for marſh lands, and 1*s.* for mowing meadows; by which, an acre of upland, that lets for 5*s.* per acre, pays 1*s.* to the lay-improprietor; an acre of marſh land, that lets for 10*s.* pays 1*s.* 9*d.*; and an acre of meadow, that lets for 1*l.* pays 3*s.* or, reduced to a fraction,

The poor land pays	8-40ths	of its rent, in lieu of vicarial tithe.
The middling -	7-40ths	
The beſt -	6-40ths	

About Maidſtone, the tithe of corn is generally compounded for; wheat, from 6 to 7*s.* per acre; and Lent-corn, from 4 to 5*s.* per acre.

In the Weald of Kent, tithes are compounded for; wheat from 5 to 6*s.* per acre; oats 3*s.*; beans, peaſe, and barley, from 3 to 4*s.*; ſeeds and meadow, 2*s.* In Romney Marſh, the graſs lands (except in the pariſh of Lydd *) pay a modus in lieu of tithe; ſome of 4*d.* ſome 8*d.* and others 1*s.* per acre; and corn lands pay a compoſition of from 4 to 6*s.* Some pariſhes paying the low modus of graſs, if it is mown, pay 1*s.* per acre. A fair commutation for tithe, I think, would occaſion a great number of improvements in agriculture; for even in the Iſle of Thanet, where the land in general is cultivated in the moſt ſuperior ſtile, there are ſome improvements yet to make; for there are ſeveral fields of poor thin chalky lands, on the hills, in the vicinity of Margate and Ramſgate, that were never known to have any manure carried on them; which, doubtleſs, would pay very well for mending, after a few years, if the occupier had the whole of the produce to himſelf; but the miſchief is, that if he is at a great expence in purchaſing town-dung, or getting ſea-weeds up the cliffs for this land, he is probably a conſiderable loſer the firſt two or three years by his induſtry; when at the ſame time, the tithe-gatherer, who is at no part of the expence, trouble, or hazard, gets corn each year, perhaps equal in value to two or three years purchaſe of the land in its unimproved ſtate: hence it is, that ſome of the poor lands lie neglected. If a fair commutation for tithe † could be deviſed, ſo as to ſatisfy all parties, there can be no doubt but that the product of this iſland, great as it already is, would be much increaſed by the additional ſtock of productions from that circumſtance ‡ § ||.

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* The modus for this pariſh was deſtroyed ſome years ſince, owing to the pariſhioners deſiring to have it lowered; to which the vicar conſented, and afterwards recovered the tithes.

There

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† I cannot believe that the tithe was ever conſidered by the farmers as an objection to improvement. I do not believe it was ever thought of: ten to one are too great odds. *Note by W. B. Eſq.*

‡ Having ſent a manuſcript copy of this report to an ingenious friend in Thanet, he returned it with the following remark:

" Whatever may be the ill effects of tithe taken in kind, or whether any, I ſhall not here enquire into, but only remark, that the thin chalky land on the hills, in the vicinity of Margate and Ramſgate, are not indebted to the tithe-gatherer for their little produce, but to the inability of the occupiers, who are, generally ſpeaking, in mean circumſtances; carters, machine-drivers, &c. &c. who plough, &c. when they can, in ſeaſon or out of ſeaſon. The ſame kind of land in the occupation of the wealthy farmers, exhibits a very different appearance to the

There would be another very conſiderable advantage to the public, in the ſaving of labour in harveſt, by the corn being carried into the occupier's barns in much leſs time than it is carried into thoſe of the parſonage: the latter being frequently at a great diſtance from ſome part of the pariſh, much time is ſpent in getting the corn home. The value of the difference of the labourer, between carrying the tithe-corn into the parſonage and farmer's barn, is juſt ſo much loſs to the public; and if rightly calculated for the whole kingdom, would amount to an immenſe ſum [*] [†]. Among the diſadvantages to the

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the eye of the ſpectator; and produces a more ample return to the pocket of the occupier."

This is moſt certainly the caſe in ſome meaſure; but there is a much greater quantity of poor unimproved land occupied by farmers, than by carters and machine-drivers. Naſh Court Farm, near Margate, has ſeveral ſcore acres, which in all probability would have been manured before this time, had they been tithe-free. *Editor.*

[§] What is meant by a fair commutation for tithe, I know not. An equivalent, or a commutation that would ſatisfy all parties, is perhaps impoſſible. The public good, however, certainly requires, that the moſt equitable one that can be deviſed ſhould take place, whether the parties immediately concerned are ſatisfied or not. The Surveyor's reaſonings are undoubtedly juſt and concluſive, and the objections of his correſpondent, however plauſible they may appear to the ſuperficial obſerver, are of no weight as to the main object in queſtion.
Note by an unknown Gentleman, tranſmitted to the Honourable Board of Agriculture.

[||] All the great, or corn tithes, are in lay-hands (excepting a ſmall portion of Minſter) and are all taken in kind; and this report ſtates agriculture in a very flouriſhing ſtate in Thanet It would, perhaps, enlighten the queſtion, if a fair compariſon could be made with ſtrict impartiality between a tithe-free farm and ſome of the beſt cultivated and managed farms ſubject to the tithe-gatherers in Thanet and Eaſt Kent. The local advantage of an inexhauſtible ſupply of manure from the ſea, is ſufficient to counterbalance the diſadvantage of payment of tithe in kind, and ſeems to be the true reaſon why ſo much of the poor land has been improved. *Note by a Clergyman in Thanet.*

[*] There are very few inſtances of the clergy taking tithe in kind in this county. *Remark by the Rev. Mr. Price of Lymage.*

But they let them to others that do, which is the ſame thing to the cultivator. *Editor.*

the public in the collection of tithe in kind, the quarrels between neighbours, who perhaps would otherwiſe be very good friends, is a very material one; and more particularly where the tithe-gatherer happens to be the clergyman; but this is ſeldom the caſe in the Iſle of Thanet, the tithe there being moſtly in lay-hands.

There are immenſe quantities of poor land in Eaſt Kent, which experience has proved, might be made to produce good crops of turnips and clover, that never yet have produced either; but the expence is ſo great to the occupier, with the idea before him that another may reap the greateſt benefit, that hardly any perſon is willing to ſet about improving his lands on ſuch terms. Crops of wheat and barley have been lately produced upon ſome of the chalky downs, by means of improvements from turf-burning, that were worth more than the fee-ſimple of the land on which they grew. But they were raiſed on lands that paid no tithe; and that circumſtance was the principal inducement to make the exertion. Let tithes be compounded for, if it were only for one term of twenty years, and turnips, clover, mutton, and wool, would increaſe in an aſtoniſhing degree. Farmers then

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To this may be added, the loſs by weather and the depredations of cattle, &c. to which the tithe-gatherer is particularly ſubject in a wet harveſt. *A note by H. G. Fauſſett, Eſq.*

† The author is a tithe-gatherer to a conſiderable amount, and of courſe intereſted in the collection of tithe; but ſeeing, as he does, the many obſtructions to all agricultural improvements, together with many other inconveniencies and loſſes to the public, by means of tithes; and being called upon for his opinion, he feels it his duty to give his ſentiments.

As this note is intended to give weight to the author's obſervations on tithe, his candour would have been more conſpicuous, had he ſtated the proportion of land he pays the tithe of, and what he collects, and left the public to judge how far he is intereſted in the collection. *Remark by a Clergyman.*

He collects full three times as much tithe as he pays. *Editor.*

would have the ſatisfaction of reaping the fruits of their own labour; and would ſet about turf-burning, and every ſcheme they could deviſe, to mend that land which they now care but little about.

SECT. IV.—*Poor Rates.*

THE expences of the poor vary ſo exceedingly in the different pariſhes throughout this county, that it will be impoſſible for me to make any exact report on this ſubject. Some pariſhes expend no more than 6*d.* in the pound on their rents, while many others exceed even 5 or 6*s.* It is a general complaint, that theſe expences are annually on the increaſe. There are, however, ſeveral corporations lately erected, under Mr. Gilbert's act of parliament, which are yet in their infancy; but, even in this early ſtage they afford a fair proſpect of anſwering the intention of reducing the poor rates: at all events they diſcourage idleneſs, and bring up poor children in habits of virtue and induſtry. The exact expences of the poor, for the laſt three years, in the ten pariſhes of the Iſle of Thanet, I have been favoured with by the different pariſh-officers, and are as follows:

	Poor.			Police.		
	£.	*s.*	*d.*	£.	*s.*	*d.*
Sarre, about	300	0	0			
St. Nicholas	733	0	0			
Monkton	973	0	0			
Birchington	899	0	0	6	10	4½
Woodchurch	252	0	0			
Minſter	1449	0	0 *			
	£4606	0	0			

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* Of this ſum the pariſh of Minſter has expended in rents for poor people, who were not able to pay them,

	Poor.			Police.		
	£.	s.	d.	£	s.	d.
Brought over	4606	0	0			
St. John Baptiſt	3786	0	0	17	0	0
St. Peter the Apoſtle	1972	0	0			
St. Lawrence	4019	0	0			
Stonore	34	0	0			
3)	14417	0	0			
Average of 3 years, £	4805	13	4			

or annual expence of maintaining the poor of the Iſle of Thanet; which is, for every acre of land, 3*s.* 6½*d.*

If the expences of the poor rates for the whole county may, with any degree of propriety, be eſtimated from this particular average, viz. 3*s.* 6½*d.* per acre, — then for 896,000 acres in the county, the whole amount is 158,666*l.* 13*s.* 4*d.*

	£.	s.	d.
From Eaſter 1790, to Eaſter 1791,	8	5	0
1791, to — 1792,	14	7	6
1792, to — 1793,	19	12	6

One very great impediment to any effectual reform in the management of the poor in Thanet, ariſes from the different juriſdictions of the county, of Sandwich, and of Dover within it.

In the juriſdiction of the County.	*Of Sandwich.*	*Of Dover.*
St. Lawrence, only part;	Ramſgate,	The whole of Birchington,
Minſter, all;	The remainder of St. Lawrence,	Ditto of Margate,
Monkton, all;	Sarre,	Ditto of St. Peter. †
St. Nicholas, only part.	The remainder of St. Nicholas.	

Note by a friend in Thanet.

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† Theſe local juriſdictions are very inconvenient, both to the county at large and to the places themſelves. The power of magiſtrates is rendered of ſmall effect; and many a ſturdy rogue eſcapes the puniſhment he deſerves. *Note by H. G. Fauſſet, Eſq.*

This may perhaps be erroneous, becauſe, in the ten pariſhes of the iſland, there are two populous towns, whereas in the 413 pariſhes of the county there are only forty-one towns, including the two cities, which is nearly double the number of towns in the iſland in proportion to the county; but, in oppoſition to this, my information from the Weald of Kent is, that poor rates there are very high; generally ſpeaking, from 3 to 6*s.* in the pound, and ſome as high as 7*s.* ſo that, upon the whole, this eſtimate for the county may perhaps be not far from the truth.

SECT. V.—*Leaſes.*

There are many eſtates in Kent held by leſſees, under the churches of Canterbury and Rocheſter; and ſome under the Crown; others under the colleges of the univerſities of Oxford and Cambridge. Many are held on three lives, under fines of renewal as they drop; others under twenty-one years, renewable every ſeven, on paying a fine as may be agreed upon by the parties, and ſubject to a ſmall annual rent.

The value of theſe leaſes varies much, according to local circumſtances; but it is generally eſtimated at about fourteen years purchaſe.

The leaſes granted to the occupying tenants are always for years; from ſeven to eleven, fourteen, and twenty-one: fourteen is the moſt uſual term: the time of entering is generally on the 10th of October. The barns, and farm-yard for foddering cattle, are always reſerved to the outgoing tenants until May-day following.

The uſual covenants are for the landlord to repair all buildings, gates, ſtiles, and bridges; alſo timber-fences, and the lead of glaſs windows; and to pay the land-tax, quit-rents, and wall-ſcotts, where there are any. The tenants covenant to find carriage for all materials for repairs, with ſtraw for thatch, and beer for workmen.

In ſome caſes the tenants pay half the workmanſhip of repairs; and they are generally reſtrained from ſelling ſtraw, and in ſome parts of the county hay, except on the condition of buying for every load of hay ſold, a certain quantity of dung; which is an excellent covenant for both parties, becauſe it has a tendency to prevent an eſtate being injured by carrying away its produce without a ſuitable return. Many of the leaſes of the preſent time are mere copies of old ones, that have been handed down through ſeveral generations, and are by ſome farmers, if ever they read them, but little underſtood. Leaſes ſhould be ſimplified, and made as ſhort as poſſible, and written in terms eaſily comprehended by the meaneſt capacity; all repetitions ſhould be avoided, and no covenants whatever inſerted but what are abſolutely neceſſary. Some farmers are bound to ſow wheat after beans, on land not fit to produce beans; to leave a quantity of podware gratten* for a wheat tilth on farms, where ſome ſorts of podware are the worſt tilth known to ſow wheat upon; and on dry upland farms, where turnips and clover are known improvements, there is not the leaſt mention of theſe articles, not even a covenant to leave an acre of either at the end of the term, nor to deſtroy wild oats, charlock, or thiſtles.

For want of a reform in this department of farming buſineſs, eſtates are often much injured, and incoming tenants half ruined in getting their farms in good order. It is the intereſt of every tenant, having a term of years in his farm, not only to keep it in a good condition, but to improve it till within the laſt two or three years; and, conſequently, not many reſtrictions are neceſſary during that period. It is requiſite, therefore, only to make it equally his intereſt to keep the farm in good condition during the remainder of the term; which would be moſt effectually done, by compelling him or his heirs to allow for damages, as the clergy do for dilapidations.

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* A local term for ſtubble.

Leaſes of twenty-one years, for all parties concerned, are, in my humble opinion, preferable to ſhorter ones; becauſe every tenant can afford to give more rent, if he has the ſecurity of enjoying the benefit of his own improvements; and tenants can get more profit from land they occupy in ſecurity; becauſe then they keep it in good order, and ſpend their money freely on improvements: by which an increaſe of every kind of agricultural production is raiſed; and the tenant, landlord, and public, are all benefited by the meaſure.

SECT. VI. — *Expence and Profit.*

I ſhall not pretend to give the Honourable Board, and the public, a particular and accurate account of the expence and profit of the agriculture of this county: it is abſolutely out of my power to make ſuch a ſtatement; and I ſhall aim only at giving a general idea of the ſubject.

The prevailing opinion, for a great length of time, has been, that the average expences of a farm, in the common routine of management, are twice the rent; but my obſervations of late convince me, that the expence is much more, and often three, four, and ſometimes, five times the rent. Generally ſpeaking, he is the beſt farmer, and makes the moſt profit, whoſe expences are greateſt, provided his money is laid out with judgment and œconomy.

The expence of ſtocking a farm, and carrying on the buſineſs of the year, is from three to four, and in ſome caſes 5*l.* per acre; and always higheſt when in the hands of the moſt ſkilful and ſpirited cultivators. The ignorant, timid, and penurious farmer is at the leaſt expence in cultivating his land; but, for that reaſon, he has the leaſt produce from it. Individuals and the ſtate are moſt benefited by a ſpirited cultivation.

With regard to profit, ten or twelve per cent. is uſually made on the capital employed; more or leſs in proportion to the ſkill, ſpirit, and induſtry of the agriculturiſt.

Suppoſing the opinions heretofore ſtated, as to the rent, ſtock, and produce, to be nearly the truth, then the account of the whole county will ſtand thus:

Rent for 896,000 acres, at 15*s.*	£672,000
Average produce (ſay thrice that ſum)	2,016,000
Capital employed, at 3l. per acre *	2,688,000
Profit, ſtated at the average produce, of eleven per cent. on the capital employed	395,680

Allowing the farmers five per cent. each for their capital (the value, if it were not employed in agriculture) then the value of the agricultural induſtry of the farmers of this county will be ſix per cent. of the capital, or £161,280.

Where gentlemen take farms into their own hands, generally ſpeaking, their produce and profit muſt be ſtated at conſiderably leſs; for, from a want of practical knowledge of the ſubject, and not condeſcending to ſtoop to the minutiæ of the buſineſs, they are ſubject to various impoſitions from their tradeſmen and labourers; which occaſion much loſs of time and profit. Some inſtances, however, occur of ſpirit and great application producing effects creditable to the owners, and beneficial to ſuch of their neighbours who are wiſe enough to follow good examples.

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* Too little for arable farms; but taking graſs-land, wood, waſte, &c. may perhaps be near the truth.

CHAPTER V.

IMPLEMENTS.

THE Kentiſh turn-wreſt plough is almoſt the only one uſed or known. Some few inſtances of trials of the Suffolk ploughs, which go with two horſes abreaſt, and are driven by the ploughman, occur, but they have not been found to anſwer the purpoſe of the farmers of this county, and are in conſequence laid aſide for the native implements; which, for all ſorts of ſoils, and all required depths of ploughing, is the beſt I have ever ſeen and tried. It conſiſts of a beam of oak ten feet long, five inches deep, and four broad; behind which is a foot, five inches by three and a half, and three feet and a half long; on the top of which the handles are placed; the foot is tenoned to the end of the beam, and mortiſed at the bottom to the end of the chep. Through the beam, at two feet five inches diſtance from the foot, is a ſheath of oak ſeven inches wide, and one and a half thick, which is mortiſed into the chep in an oblique direction, ſo that the point of the ſhare is twenty-two inches diſtant from the beam. The chep to which the ſhare is fixed is five feet long, four inches wide, and five inches deep. The ſhare is of hammered iron, weighs about thirty-two pounds, is twenty inches long, and from four inches and a half to ſeven inches wide at the point.

The upper end of the beam reſts on a carriage with two wheels, three feet two inches high. On the axle-tree is a gallows, on which is a ſliding bolſter, to let up and down. Through the centre of the axle is a claſp-iron, to which is fixed a ſtrong chain, called a tow, that comes over the beam, ſo fixed, as by means of notches (or a pin called a check) to let the whole plough out a greater length from the axle, thereby letting it down to a greater depth.

This implement, altogether, is moſt certainly a very heavy one, and, from its conſtruction, muſt be made very ſtout; as otherwiſe either the beam or chep will break with the force of four ſtrong horſes, when it comes ſuddenly againſt a rock, or any ſtiff place in the ſoil, a hard beaten path, or root of a tree, &c. It is remarkable for going well among flints and rocks. With theſe ploughs the ſoil may be turned up a great depth, and laid quite flat, without any kind of furrow being left open; which is a great advantage in a dry ſoil. They coſt, with every kind of tackle fixed for drawing them, entirely new, about 5*l.* 5*s.* each.

With theſe ploughs four horſes are generally uſed in Eaſt Kent; and there an acre and a half is the common day's work, a little more or leſs, in proportion to the ſtiffneſs or lightneſs of the ſoil: but in the weſtern part of the county, from the tenacity of the ſoil, it is neceſſary to make the ploughs much ſtouter, and to uſe ſix horſes, the plough there being drawn by a long large iron link, called a tow, which comes from the axle of the carriage round the heel of the plough. In that part of the county they ſeldom plough more than an acre in a day, and ſometimes not half ſo much, even when ſix horſes are employed.

In the Weald of Kent they have a foot-plough with a turn-wreſt, for breaking up lays. They coſt 2*l.* 15*s.* each.

A double plough from a Gentleman in Suffolk has been ſent to me; and I have ſpared no exertion or attention in giving it a fair trial; but it has not ſucceeded. The many flints which lie faſt in the ſtiff ſoils, are continually throwing the plough out of the land; added to which, the deep open furrows and the uneven ſurface left by this inſtrument, are inſurmountable objections, eſpecially where drill machines are much uſed.

A great variety of ploughs and machines for drilling every ſpecies of grain is uſed in this county. The beſt by far for drilling wheat, barley, oats, peaſe, tares, &c. are made by Mr. Wellard of Deal. They are drawn by two horſes abreaſt, in a double pair of ſhafts; drill ſeven rows at a time, each ſeven inches apart; and are ſo contrived as to drill any quantity required per acre. They are very ſimple in their conſtruction, and not liable to get out of order. They coſt 14*l.* 10*s.* each

Harrows conſiſt of four beams of aſh, each four feet and a half long, and two inches and a half ſquare, framed together ſo as to be four feet and a half wide behind, and four feet before: there are ſix or ſeven teeth of iron in each beam, which when new are eleven inches long, and weigh about a pound and a quarter each. One boy uſually leads a pair of horſes, each drawing one harrow.

They coſt, with a ſtrong iron chain, called here a Harrow-ſtrap, about a guinea.

The carriages uſed for carrying corn to market, &c. are called Hutches, drawn by four horſes; generally loaded with from ſeven to twelve quarters of corn, according to its weight and the diſtance it is carried. They are thirteen feet long, are made crooked at the ſides, that the width cannot be poſitively aſcertained; but are generally three feet wide before, and four behind at the bottom; and about ſix or eight inches wider at top, and twenty deep: they are boarded at the ſides and ends cloſe enough to carry ſand. If made with wooden axletrees, they coſt about twenty guineas; if with iron, twenty-five.

The dung-carts are of various dimenſions, but moſtly about ſeven feet long, and twenty inches deep, four feet broad behind, and three feet ten inches before; are uſually drawn by two horſes, and with broad wheels; and with every thing new and well made, coſt about eight guineas.

Rolls of various ſizes are uſed for breaking the clods; they are made nine feet long, and from fourteen to twenty-four inches in diameter; coſt from 3*l.* to 10*l.*

Wheat is reaped with a toothed ſickle; barley and oats are mown with a long ſcythe and cradle; they are then bound into ſheaves, being drawn together on one foot till the bundle is of ſize ſufficient for a band made of two lengths of the corn twiſted together.

Horſe-rakes are uſed for dragging together the looſe barley left by the binders; they are made of oak, twelve feet long, with iron teeth fourteen inches in length and five apart; the beam is cut four inches by three. Theſe rakes are drawn by one horſe led by a boy, with a man behind to lift it up every time it is filled with the corn. Price from 18*s.* to 1*l.* 4*s.*

Wheat ſtubble-rakes are uſed to drag that article together, made on the ſame principle as the laſt mentioned, but much heavier, and two feet ſhorter: the beam is five inches by four, drawn by two horſes. Coſt about 2*l.* 2*s.*

On the ſtiff ſoils the Weſt Kent double harrows are uſed, each of which requires two horſes; they have ſix beams, each with ſix teeth projecting ten or twelve inches from the wood. They coſt 2*l.* 10*s.* each.

Rollers of ſtone are uſed to break the ſtiff ſoils, drawn by ſix horſes: they coſt from 12*l.* to 14*l.* each.

Near Maidſtone, Hutches are made to contain two chaldrons of coals; and coſt 30*l.* In moſt other parts they carry a chaldron and a half; and coſt about 25*l.* each.

In the Weald of Kent, carriages, called bavin tugs, are chiefly uſed for faggots; and many uſe them for corn and hay. They carry 150 faggots; each four feet long, and three girt. The hind and fore wheels are fourteen feet apart; by which the length of the carriage is ſo much, that the load lies very low, and is thereby leſs liable to be turned over; which otherwiſe would often be the caſe in the roads of the Weald. This implement coſts about 15*l.* or 16*l.*

Implements and Appendages to the Hop Grounds.

Every hop-plantation of four or five acres, requires an oaſt about ſixteen feet ſquare, which, built ſubſtantially with the requiſite ſtowage room, coſts from 150*l.* to 200*l.*

This is furniſhed with a ſet of picking baſkets, about twelve in number, which coſt about 5*s.* 6*d.* each; alſo a good ſcale-beam, with weights and ſcales; which, together, coſt about 5*l.*

A ſhim, made with a frame like a wheelbarrow, is eſteemed the beſt ſort; it coſts about 2*l.* 2*s.* This implement is a very uſeful and convenient one likewiſe for tearing up weeds on ſummer-fallows.

A harrow to be drawn by one horſe, with a ſmall wheel in front, to go round at the ends of the plantation, and a pair of handles to be holden by the man who follows it, in order to keep it from bruiſing the binds. This implement coſts about 1*l.* 15*s.*

A large iron peeler to make holes in the land for the poles, coſts 6*s.* or 7*s.* A hop-dog, to wrench up the poles, coſts 5*s.*

The firſt, and I believe the only threſhing mill in the county, is at Betſtranger, which I erected about three years ago. By a number of improvements, and after many alterations, I have the ſatisfaction to find it anſwers my purpoſe extremely well. It requires four horſes, about eight men and four boys to remove the corn from a diſtant part of the barn, feed the mill, attend a winnowing-fan, and ſtack the ſtraw. With this aſſiſtance, when the corn yields well, it will threſh and half-clean three quarters of wheat, or four of barley, or five of oats, per hour; by which I find there is a ſaving of nearly one half of the expence of threſhing, beſides the advantage of getting the corn out cleaner from the ſtraw. There is, however, no ſmall inconvenience attending it in ſo large a quantity of ſtraw, chaff, &c. being got out at one time, when perhaps it is not wanted; and by that means, it is either waſted or ſpoiled by neglect before it comes to uſe.

Expence and Produce of a Day's Threſhing.

	£.	s.	d.
Eight men, at 1*s.* 8*d.* each -	0	13	4
Four boys, at 1*s.* each -	0	4	0
Four horſes, at 2*s.* 6*d.* each -	0	10	0
Cleaning and meaſuring 24 quarters of wheat, at 3*d.* each -	0	6	0
	1	13	4

which is about 1*s.* 4*d.* per quarter, or, as before ſtated, about half price.

	£.	s.	d.
Cleaning and meaſuring 32 quarters of barley, at 3*d.* -	0	8	0
Other expences, as above -	1	7	4
	1	15	4

which is ſomewhat more than half price, barley being uſually threſhed of late at about 1*s.* 6*d.* per quarter.

	£.	s.	d.
Cleaning and meaſuring 40 quarters of oats, at 1*d.* per quarter -	0	3	4
Other expences, as above -	1	7	4
	1	10	8

which is a little more than half price, they being uſually threſhed at about 1*s.* 3*d.* per quarter.

This mill will threſh every kind of corn cleaner than it is uſually done by the common mode. To aſcertain which, I ſometime ſince got ſeveral neighbouring farmers to have thirty-ſix pounds of wheat ſtraw threſhed perfectly clean in their reſpective barns, and then I had the ſame weight of ſtraw threſhed after it came from the mill; and I found that the average produce of corn left in the ſtraw, by the common mode of threſhing, was half a pint in every thirty-ſix pounds of ſtraw, more than is left by the mill.

The horſe-wheel is twelve feet diameter, in which there are 120 wooden cogs, which work into a caſt iron nut, with fourteen cogs on the end of a horizontal ſhaft; at the other end of which, within ſide the barn, is a ſpur-wheel, with fifty-ſeven wooden cogs, which work into a nut, fixed on an iron ſpindle, in which is fourteen cogs. On this ſpindle the cylinder is placed; it is five feet long, and three feet in diameter, and it has four beaters lined with thin iron plate fixed upon it, each projecting from the face of the cylinder about two inches and a quarter.

When the horſes walk a tolerable pace, the cylinder revolves upwards of 200 times per minute, making nine or ten hundred ſtrokes in that ſpace of time. The beaters, by the revolution of the cylinder, meet two fluted wooden rollers working in contrary directions, by a wheel fixed on the horizontal ſhaft; they are the ſame length of the cylinder, and five inches diameter, and revolve near thirty times per minute.

The corn is drawn in between theſe two rollers, from off a feeding-board, as broad as the cylinder is long.

The beaters ſtrike the corn upwards, by which the ſtraw and corn together are thrown over the cylinder, and drop down on a grating; through which the corn and chaff fall into a hopper, and from thence, paſs away before a winnowing-fan, by which the chaff is ſeparated from the corn. The ſtraw is puſhed off the grating by a perſon who ſtands by it, and from thence is by others conveyed either out into the farm-yard, or ſtacked in the barn for future uſe. The corn, with the remaining chaff, &c. is then paſſed through a winnowing machine, and by that made perfectly clean.

CHAPTER VI.

INCLOSING.—FENCES.—GATES.

THERE is no portion of Kent that is occupied by a community of perſons, as in many other counties. Our commons for live ſtock are generally much covered with furze, thorns, brakes, or heath, with a mixture of plots of poor graſs-land; the cattle and ſheep feeding upon them, are of courſe in a half-ſtarved ſtate. The total deſtruction of all commonable rights, by a general act of parliament for incloſing, is an object, in my humble opinion, of the greateſt magnitude to the intereſts of this kingdom in general, and to this county in particular. There have been ſome exertions for accompliſhing a diviſion and incloſure of an extenſive common in Eaſt Kent, within theſe few years; which failed for want of unanimity among the perſons concerned.

The fences in the uplands conſiſt of old hedges, ſuch as nature has formed; quickſet hedges raiſed from the berries of the white thorn, and dead hedges, made from the ſpare buſhes from the old hedge-rows. Turf banks and ſtone walls are not erected for fences in this county.

In Romney Marſh, an immenſe quantity of oaken poſts and rails are uſed; which are brought ready prepared from the neighbouring woody part of the county. The old hedges, of natural growth, are uſually cut down at from ten to twenty years old; and the fences are then made anew at the expence of 3*d.* per rod, if the hedge is bound; and 2*d.* without binding. Ten or eleven ſtakes, and double that number of binders, are generally allowed to every rod. If there is a ditch along the hedge, it is uſually ſcowered out at the ſame time, for 3*d.* per rod, if about three feet wide, and two deep; but if wider and deeper, then a greater price is given in proportion.

Quickſet hedges are planted on the bank, made by the mould, dug from out of a ditch three feet wide, and two feet deep; and an hundred plants are allowed to every three rods. The beſt plants are bought of the nurſerymen, at 1*s.* per hundred. Sometimes plants are gathered out of the wood for 4*d.* per hundred, by the labourers; but they never ſucceed ſo well as good clean grown nurſery plants. There are other methods uſed; ſome approving a broader and deeper ditch, while others prefer planting on level ground: but the method moſt in uſe, is the one above mentioned. The dead hedges are made with white and black thorn-buſhes, at the expence of from 2*d.* to 3*d.* per rod for workmanſhip. Thoſe made with black thorn only, and well ſtaked and bound, will laſt five or ſix years.

The water-ditches, as fences in the marſh lands, are from eight to fourteen feet wide; and from three to five feet deep, with ſides ſomewhat ſloping; they are emptied of the mud and rotten vegetable matter, once in eight or ten years; the expence of which operation, for thoſe of middling dimenſions, is about 18*d.* per rod; for thoſe of greater width, and being full of mud, 2*s.* per rod, or more. The poſt and rail-fences in Romney Marſh are all made of oak, at the expence of 9*s.* per rod, if of three rails; but if of four, then 13*s.* per rod. The digging of new ditches coſts about 2*d.* per cubic yard.

Gates. Such as are in common uſe are made of oak, with five bars, at 16*s.* per gate, for the wood-work only; iron hangings at 6*d.* per pound. In thoſe parts of the county where oak is moſt plentiful, the price is ſomewhat lower. The gates about gentlemens ſeats are of various forms, materials, and prices.

CHAPTER VII.

SECT. I. — *Tillage.*

THE general method of cultivating the land is with the common turn-wreſt plough, already deſcribed; by which every kind of ſoil, however full of flints, is turned up to any depth, even to fourteen or fifteen inches, when neceſſary; and the land, by its operation, is left as level as if it were dug with the ſpade; which is a great advantage in dry ſoils: for ſuch, admitting a quick filtration of the water, require neither furrows or ridges, and the moiſture is equally diffuſed over the ſurface of the earth; which cannot poſſibly be effected where it is laid in high ridges. The uſual depth of ploughing for all corn crops, is from five to ſeven inches; the poor light ſoils being generally turned up the ſhalloweſt, and the rich loams the deepeſt. Such parts of the low lands, or ſpringy hills, which are wet, are ploughed with the turn-wreſt plough, in flat ridges; ſome half a rod, and others a rod in width; the furrows between them, after the corn is harrowed in, are opened with an old plough, with a wreſt at each ſide; by which means the water in wet ſeaſons paſſes off, and the land is covered with an even crop, ſo that the marks of the furrows are hardly to be perceived in the crop when the corn is out in ear:—a very different, and ſurely much more beautiful object to view, than the crops on high round ridges, where the tops are always the only good crop, and the lower parts generally a poor half-ſtarved one.

The ploughmen are generally as complete workmen as in any other part of the kingdom. They have a pride in making good work; but their natural fondneſs of the horſes, frequently prompts them to take up their plough to a ſhallower depth when their maſter's back is turned, in order to eaſe their horſes; which ſhews the neceſſity of a conſtant and vigilant attendance of the farmer to his ploughmen.

The even ſurface left by the turn-wreſt plough, is particularly favourable to the operations of the mower; and likewiſe is very convenient to the laying land down to paſture. Upon the whole, the tillage of land is nowhere conducted in ſuch a ſuperior ſtile as in many parts of this county; and nowhere are to be ſeen ſuch good crops on poor ſoils, or crops in general ſo clean and free from weeds.

SECT. II. — *Fallowing.*

THERE is not any part of agriculture which has occaſioned more diſcuſſion and controverſy among writers on huſbandry, than this ſubject of Fallowing. By many, it is ſaid to be too little practiſed; and by others, too much ſo. By ſome, fallowing is condemned altogether; and by others, it is ſtrongly recommended as the only method to deſtroy weeds, and meliorate and enrich the ſoil. I ſhall merely report what is the practice of this county in general, make a few obſervations on the neceſſity and utility of it, and then give ſuch inſtructions for making a good fallow, as my own experience, on a large ſcale, for twenty-five years paſt, has taught me to think the beſt.

It is to be underſtood, that by a fallow, or ſummer-fallow, is meant land that bears no crop whatever for one year, and is well cultivated at proper intervals during the whole of that time; for if a crop of turnips, tares, or rye, for green food for ſheep are produced, the land cannot be truly ſaid to be a complete fallow. On the high lands of the Iſle of Thanet, fallowing is the uſual practice every fourth year for barley; but perhaps, not quite ſo much as formerly, becauſe a greater quantity of turnips are ſown; and a crop of peaſe is ſometimes ſubſtituted for a fallow.

On the cold ſtiff lands on the hills running acroſs the county, from Dover to Wrotham, fallowing for wheat every fourth year, is the general practice. In Eaſt Kent, fallows are always made on poor lands, more or leſs, as occaſion requires; in ſome caſes, to get the land clean from weeds; and in others, where weeds do not abound, to make a good tilth for a crop of wheat, if a ſtiff, and barley, if a light ſoil. On the very worſt ſoils, where wheat is never ſown, fallows are frequently made for oats or barley, and for getting land into fine tilth for rye-graſs, or other ſeeds.

In the Iſle of Shepey, fallows are made every ſix or eight years for wheat; and in the Weald of Kent, the farmers are bound by the covenants of their leaſes to make ſummer-fallows, and to lime for wheat.

On the clay and ſtiff ſoils of Weſt Kent, fallows are uſually made for wheat; and in all parts of the county where ſainfoin is intended to be ſown, a good ſummer-fallow is invariably made by the beſt huſbandmen.

When any kind of ſoil has borne three or four crops of corn in ſucceſſion, and is become full of weeds, a well made ſummer-fallow is certainly requiſite, not only to deſtroy the weeds, but likewiſe to meliorate and invigorate the ſoil: it is the moſt certain cure, the ſpeedieſt, and, in the end, the cheapeſt.

There are many kinds of land which, no doubt may, by a proper ſucceſſion of crops, and a vigilant attendance with the hoe and hand-weeding, be kept tolerably clean from weeds for a long ſeries of years, without the intervention of a ſummer-fallow. But it muſt be admitted, that there are other untoward ſoils, which all the art and induſtry of man cannot keep perfectly clean and in good order for any length of time, without a fallow: and there are other ſoils, which, if they could be kept tolerably free from weeds for a long time, might perhaps be more improved, and more profitably managed by a fallow every four or five years.

The ſoils that are eaſieſt kept clean without a fallow, are the dry ſandy loams, chalk, and gravel, which can be worked almoſt at any time, however wet; and readily admit the operation of drilling and hoeing at all ſeaſons.

Thoſe which moſt require fallowing, are the ſtiff, wet ſoils, that will not admit the operation of the ploughs and harrows but at certain intervals, when the land is between wet and dry; opportunities of working ſuch ſoils are frequently loſt by bad ſeaſons; in which caſe, weeds will undoubtedly increaſe, and it is then impoſſible to eradicate them but by making a good ſummer-fallow, or what is by ſome called a fallow-crop (viz.) cabbages, or winter-tares; neither of which will perhaps turn to ſo good an account in the end as a complete ſummer-fallow.

The cold wet clays of this county, even if they are tolerably clear from weeds, are ſubject, after two or three crops, to run together; and they then become ſo exceedingly ſtiff and cold, that, without the intervention of a ſummer-fallow to meliorate the ſoil, very poor crops only are to be expected; whereas, when a good fallow is made, an abundant crop of wheat, and two or three good crops of ſpring corn, are frequently produced. The conſtant practice of making ſummer-fallows in many counties for wheat, and ſowing beans broad-caſt after it, and then recurring to a fallow again, is moſt certainly a bad practice; and for landlords to compel their tenants to make a fallow every third year on all kinds of ſoils, as is the practice in ſome other counties, is the height of abſurdity; and it is no wonder that ſo many writers are found who condemn fallowing *in toto*, when they ſee ſo frequently the miſchievous effects of fallowing under ſuch management.

To make ſummer-fallows on light land, ſuch as hazel, loam, ſand, gravel, or chalk, to ſow wheat upon, is extremely wrong; becauſe experience teaches us, that wheat, under ſuch management, is very ſubject to mildew, and to be root-fallen. All ſtiff ſoils, not full of manure, nor very rich, may with ſafety be ſown with wheat on a fallow; and all light ſoils are a fine tilth for barley.

A good ſummer-fallow is the beſt preparation for a crop of clover; and a clover-lay, of all the tilths known, is the beſt for every other crop. But to ſow clover on moſt ſoils, without a previous fallow, is a certain method of running the land to couch-graſs.

To make a good fallow, all kind of ſoils ſhould be ploughed about five inches deep before Chriſtmas; and as ſoon as the land is tolerably dry in March, it ſhould be croſs-ploughed about ſix inches deep. Stiff ſoils muſt be left rough, until meliorated by rain, and then worked fine when between wet and dry; and all light ſoils immediately harrowed cloſe after the plough, in order to promote the vegetation of ſeedling weeds, that they may be deſtroyed by ſubſequent ploughings, which muſt be repeated two or three times more, at intervals, as opportunities occur, during the months of May, June, and July; every time reducing the land fine immediately after each ploughing, while the land is moiſt, for the purpoſe before mentioned, of promoting the vegetation of weeds. Particular care ſhould be taken not to touch the land either with the plough or harrows, when it is the leaſt wet, as that only kneads it together, and creates more work to reduce it; beſides locking up many of the ſeeds of weeds within the hard clods, and thereby preventing vegetation; by which ſuch ſeeds are reſerved for miſchievous effects in the following crops of corn.

Some farmers in this county, and many in ſome others, never plough their fallows until they have finiſhed their barley-ſowing in the ſpring; and then, perhaps, not again until the land is overgrown with weeds. I have ſometimes ſeen dung carried out, and laid in heaps, for ſpreading on ſuch fallows, among green thiſtles and other weeds above the ground.

Fallows had better never be made at all, than be done in ſuch a ſlovenly manner.

SECT. III. — *Rotation of Crops.*

ISLE OF THANET.

THE general ſyſtem, or plan of management, in the Iſle of Thanet, on all the thin light ſoils, has been, time out of mind, one of four courſes, viz.

Fallow,
Barley,
Clover,
Wheat;

but ſubject to ſeveral variations, which have much increaſed of late. The ſoil having been greatly improved during the laſt fifty years of excellent management, it is found that the courſe may be extended to advantage by ſubſtituting peaſe for fallow, thus:

Peaſe,
Barley,
Beans,
Wheat,

and then return to a fallow as before, and ſometimes, though but ſeldom (and then generally conſidered as bad management) a crop of barley is taken after the wheat, thus:

Barley,
Beans,
Wheat,
Fallow, &c.

It is to be underſtood here, that the foundation of all good management, and the ſyſtem moſt practiſed, is the firſt mentioned of four courſes; and it is by this ſyſtem, with the plenty of manure from the ſea-weed, that great part of this iſland, which is naturally as poor land as any in the kingdom, is made to produce ſuch excellent crops of corn of the firſt quality.

The deep rich ſandy loam before deſcribed, and ſome of the beſt of the land at the weſt end of the iſland, are cultivated under the round tilth ſyſtem of Eaſt Kent, viz.

Beans,
Wheat,
Barley.

The proceſs under the four courſe ſyſtem is, after raking up the ſtubble of the wheat, and ſtacking it near the farm-yard for littering hog-pounds, thatching, &c. to plough the land five or ſix inches deep as ſoon as poſſible in the autumn, which is croſs-ploughed when the land is tolerably dry in the ſpring, and repeated two or three times during the ſummer months. Between the times of ploughing, collections of mould, farm-yard dung, ſea-weed, &c. are formed in convenient ſituations in the fields, which are turned over in the autumn, and in froſty weather carried out on the fallow, at the rate of from forty to forty-five cart-loads per acre. This manure is ſpread and ploughed in as ſoon as opportunity offers; and the barley is drilled in, at the rate of three buſhels per acre, or ſown broad-caſt, four buſhels per acre, the firſt dry week in February or March; and if for clover or trefoil the next year, thoſe ſeeds are ſown with the barley: the clover or trefoil lies only one year, and is ploughed about five or ſix inches deep in November, and ſown with wheat.

If no ſeeds are ſown among the barley, the ſtubble is ploughed in about ſix inches deep in the winter, and harrowed the firſt dry week in February; and then beans are drilled in furrows eighteen or twenty inches apart, at the rate of four buſhels per acre; the furrows are harrowed, and the land generally rolled down ſmooth. As ſoon as the beans appear they are horſe-hoed, and ſometimes immediately harrowed acroſs the furrows; and then, as ſoon as they have recovered the harrowing, they are hand-hoed with a hoe about five inches broad, at each ſide of the furrow, at the expence of 3*s.* per acre; which operation is repeated in May, or the firſt week in June, at 4*s.* 6*d.* per acre; the ground is then ſtirred with an earthen plate, to raiſe a quantity of mould againſt their ſtems.

As ſoon as the beans are harveſted, the land is ſcuffled with the broad ſhare, and made perfectly clean by harrowing, and burning the weeds, if any, and then ploughed for wheat. In both caſes, whether clover-lay or bean-ſtubble, the wheat is uſually ſown three buſhels per acre, after having been ſteeped in ſalt water from five to twelve hours, and mixed with ſlaked lime. When peaſe follow the wheat, they are drilled in, and managed in every reſpect the ſame as the bean-crop, except harrowing after the horſe-hoe. The barley and other crops after peaſe, are managed the ſame as if the land had been a ſummer-fallow, inſtead of peaſe. Under the round tilth ſyſtem, the bean and wheat crops are managed the ſame as before mentioned; but the barley is uſually ſown later, in order to give time, by thrice ploughing, to clean the land; and the manure is generally ſpread on the barley-ſtubbles for beans.

Radiſh-ſeed is frequently ſown on theſe lands inſtead of beans, for the London market; and canary-ſeed in lieu of wheat, both on the clover-lays and bean-ſtubbles. The radiſh is ſown in March, on furrows made with a two or three-cheped* plough, about ten inches

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* A provincial term for a piece of wood on which the ſhare is fixed.

apart, two or three gallons of ſeed per acre: as ſoon as they appear, every other row is cut up with a horſe-hoe, leaving the rows twenty inches apart. When the plants get two or three rough leaves, they are hoed out to the diſtance of from ten to fifteen inches apart in the rows, and then kept clean by a ſecond horſe and hand-hoeing, if neceſſary.

The crop is ſeldom fit to reap till October, and ſometimes is out in the fields till near Chriſtmas, without receiving any injury from the wet weather; it being neceſſary that it ſhould have much rain to rot the pods, that it may threſh well.

Canary is ſown the firſt dry week in February, on furrows ten or eleven inches apart (the land being previouſly made fine and light on the ſurface) about four or five gallons per acre; and as ſoon as the furrows can be ſeen, they are hoed with a Dutch hoe, at the expence of 1*s.* 8*d.* per acre, and kept clean by repeated hoeings, when neceſſary, during the ſummer. It is generally ripe by the beginning of September. Like radiſhes, it requires much time in the field, and ſeldom ſuffers by wet weather.

EAST KENT.

Chalky ſoil forms a very conſiderable part of the diſtrict under ſurvey. This ſort of land cannot be ſaid to be under any ſettled ſyſtem of management, for there are almoſt as many ſchemes of practice as farmers; much of it is down-land, or ſheep-walks; ſome of which (although no very material part) has been ſo time out of mind; and ſome tenants are reſtrained (very injudiciouſly) from breaking up thoſe old downs. The practice has been chiefly, when old ſheep-walks have been ploughed up, to do it in wet weather, in the midſt of winter, when other arable lands are too wet to work with advantage; and the principal inducement has been that of employing the teams when they would probably be doing miſchief on better ſoils. This ſort of land, when ſo ploughed, is uſually ſown in March, with black or grey oats, which, from being generally over-run with charlock (provincially called Kinkle) produces very poor crops, ſometimes hardly worth harveſting. The crop of oats is generally ſucceeded by a fallow; perhaps ſown with coleſeed, and then oats with ſeeds*; and after that crop, if the land can be folded, a ſlight crop of wheat is obtained; but that only on ſome of the beſt parts of the field, where there is a greater depth of ſoil, or the flat tops of ſome downs, where there is a ſoil ſomewhat ſtiffer and better than the ſlopes of the hills. Some of the courſes of crops of the down-lands, when ploughed, are as under, viz.

1.	2.	3.
Down-land.	*Down-land.*	*Down-land.*
Oats	Oats	Oats
Coleſeed	Fallow	Fallow
Oats	Oats	Oats
Seeds	Clover or rye graſs	Sainfoin, from five to ten years
Oats	Oats	
Fallow	Fallow	

4.	5.	6.
Down-land.	*Down-land.*	*Down-land, burnt.*
Oats	Peaſe	Turnips ſame year
Tares	Coleſeed	Barley
Coleſeed	Oats	Clover
Oats	Clover	Wheat
Seeds	Wheat	Turnips, &c.
Wheat	Fallow	
Fallow		

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* Clover and Trefoil.

7.	8.	9.
Downſhare Turnips	Downſhare Turnips	Downſhare
Turnips	Turnips	Wheat
Barley	Barley	Barley
Clover	Sainfoin	Oats
Wheat		Oats
Fallow		Rye Graſs.

The five firſt and laſt are the prevailing courſes, and are each of them very bad, as they generally tend to impoveriſh the ſoil, and make it worſe, if poſſible, than before; for whatever grows upon it is carried to the barn among other crops, and the ſtraw goes to the general maſs of dung, and increaſes the heap for the better ſort of land. Scarcely any body thinks of dunging this ſoil, and it is conſequently impoveriſhed, by being robbed of every thing it produces. But it is not ſo with the ſixth, ſeventh, and eighth courſes, for there the burnt turf produces turnips almoſt to a certainty; and by folding theſe off with ſheep, much manure is left on the land, and a ſtout crop of barley and clover obtained; the clover being again folded off, a good crop of wheat is produced, and the land is in a gradual courſe of improvement. The ninth, and laſt mentioned, is the courſe after downſharing that has hitherto generally prevailed; and is the moſt deſtructive plan that can be deviſed. It is this injudicious management of downſhare land that has brought the practice of downſharing into diſrepute. Four crops of white corn in ſucceſſion, with rye graſs at laſt, would impoveriſh the beſt land in the kingdom; what then muſt it do on ſome of the worſt? Even if rich land was well manured for a crop of wheat, and that ſucceeded by three crops of white corn and rye graſs, it muſt inevitably become poor; and then the coat of manure might with as much propriety and juſtice be condemned for having done the injury, as the downſhare for having hurt the land before mentioned. In ſhort, it is not downſharing, but the wrong management afterwards that is deſtructive. Downſharing is the greateſt improvement yet known for chalky ſoils, if rightly managed.

Loamy ſoils are uſually under the round tilth ſyſtem of Eaſt Kent, viz.

Barley,
Beans,
Wheat.

The barley is a cleanſing crop, by being firſt ploughed in winter, and then twice or thrice more in dry weather in the ſpring, before the barley is ſown. Some farmers, whoſe land is very clean, plough only twice, and then drill the barley in April, in rows from ſeven to ten inches apart, hoeing and hand-weeding the intervals. Four buſhels are ſown broad-caſt, and from two and an half to three drilled per acre. Barley is mown, and after lying a week or two, is bound in ſheaves, and ſet up into ſhocks of ten at a place, to be tithed. When the wheat-ſowing is over, and the dung intended for beans is carried out, the barley ſtubbles are then ploughed in. The beans are put in rows, from eighteen to twenty inches apart, if boxed in, four buſhels per acre; if drilled or dropped by hand, three only; the crop is horſe and hand-hoed, as in the Iſle of Thanet; and the whole, with the ſucceeding wheat crop, is managed as mentioned in that diſtrict. See page 63.

The ſtrong cledge is generally under a four courſe ſyſtem of

Fallow,	*Or,*	Fallow,
Oats,		Wheat,
Clover,		Clover,
Wheat;		Wheat.

The

The oats and clover are ſown, in a dry ſeaſon, in March; the clover is generally fed with ſheep, and folded for wheat, which is ſown early, that the work may be finiſhed before much wet weather ſets in. If the fallow is cropped with wheat, it is ſown the end of October, or beginning of November; the clover-ſeed in that caſe is ſown on the wheat in the ſpring, and covered with a roll only; for this ſoil is generally too much pulverized with froſt to admit harrowing at that time. The clover is fed off by ſheep, as before mentioned, and the crops of wheat and oats are harveſted as on the other ſoils already deſcribed.

The hazel mould is under different ſyſtems at different places, according to the fancy of the farmer, or ſituation of his land. Some purſue the Norfolk ſyſtem of

Turnips,
Barley,
Clover,
Wheat;

others the Eaſt Kent, of

Barley,
Beans,
Wheat;

and others Peas,
Barley,
Clover,
Wheat.

Some ſow early peaſe and turnips the ſame year.

This ſort of ſoil being dry, and very eaſy tillaged land, may be managed as well under one courſe as another. If the occupier has with it a tract of grazing land, he finds turnips and clover convenient, and purſues the Norfolk ſyſtem; on the other hand, if he has no graſs-land, or has the corn-tithes himſelf, he finds it moſt advantageous to purſue the Eaſt Kent ſyſtem. The methods uſed for ſowing and harrowing the ſeveral crops, are the ſame as before mentioned; it is needleſs, therefore, to repeat them here.

The ſtiff clays on the tops of the chalk-hills are under a four courſe ſyſtem of

Fallow,
Wheat,
Beans,
Barley;

and a very good one it is for ſuch a ſoil. The fallow gives an opportunity of getting a fine early wheat ſeaſon, which is very neceſſary on this cold backward land. The wheat ſtubble is ploughed ſoon in the winter, by which the froſt brings the ſurface into fine order for drilling the beans as ſoon as the land gets dry in the ſpring. The beans are horſe and hand-hoed to keep the land clean for the barley-crop, which is put into the land at two ploughings only. The corn is harveſted in the ſame manner as on other ſoils, but is much later than on any other ſort of land. The wheat-harveſt uſually commences about fourteen or eighteen days later than in the Iſle of Thanet, or towards the end of Auguſt, and other crops in the ſame proportion.

THE LAND IN THE VICINITY OF SANDWICH, FAVERSHAM, AND DEAL.

The dry loamy ſoils are cultivated in the round tilth ſyſtem of Eaſt Kent; namely,

Barley,
Beans,
Wheat.

A few oats are ſown inſtead of barley, and peaſe inſtead of beans; and ſometimes a crop of canary is ſown on the bean-ſtubble inſtead of wheat.

Barley is ſown or drilled on the third ploughing, at the end of April and beginning of May: the quantity of ſeed ſown, and other management, the ſame as before deſcribed on the loamy ſoils of Eaſt Kent. When the land is manured, the dung is generally laid upon the barley-ſtubble for beans, at the rate of forty or fifty cart loads per acre; when ploughed, the beans are drilled, or dropped by hand, from three to four buſhels per acre; the crop is frequently horſe and hand-hoed three times each, and always kept perfectly clean from weeds. It is harveſted as in other parts; after which the land is ploughed once entirely flat, and ſown with wheat chiefly in the month of November. The crop of wheat is carefully hand-weeded in the ſummer months, and the harveſt uſually commences a few days later than in the Iſles of Shepey and Thanet, or about the firſt week in Auguſt.

The ſtiff wet clay of the lower parts of this diſtrict is much of it under a two courſe ſyſtem of beans and wheat alternately. The beans are always put in rows, twenty inches apart; they are frequently planted by women dropping them by hand, while a man follows and covers them with the looſe mould which he cuts and draws from the next furrow, with an inſtrument called a planting-hoe. Wheat is ſown broad-caſt before the rainy ſeaſon commences in the autumn; and this land is laid in flat ridges of half a rod or a rod in width: after ſowing, the ridge-furrows are opened, to let off the water in winter.

The beſt of theſe ſtiff wet lands are often ſown with canary, inſtead of wheat, and garden-beans are planted inſtead of common ticks; theſe are the windſor and toker beans, which are dropped by hand, at the rate of ſix buſhels per acre, in rows twenty inches apart. They ſometimes produce very abundant crops, and great profit; at other times, when too much land is planted, and the crop happens to be indifferent, they ſell at low prices, and turn to a very bad account; and at ſuch times are given to fattening bullocks, ſheep, and pigs. Both the bean and canary-crops are kept clean by repeated hoeings. The canary is cut in September, at the expence of 6*s.* or 7*s.* per acre, and is left a great while in the field, in lumps of half a ſheaf at a place, before it is fit to carry into the barn. The expence of thraſhing this ſeed is 6*s.* or 7*s.* per quarter; and its chaff is the beſt horſe-food of the kind that comes out of the barns.

ISLE OF SHEPEY.

The general rotation here is beans and wheat alternately; and when the land gets foul, or the farmer thinks it wants reſt, he ſubſtitutes a fallow for the bean-crop, which is done once in ſix or eight years. On the gravelly parts they ſow a few oats, and ſometimes barley. Some turnips are ſown; but from the land holding the wet ſo late in the ſpring, they are of little uſe to the grazier. If the cabbage-culture is beneficial in any ſituation, it muſt be a great acquiſition in this iſland, as a ſubſtitute for turnips; and the ſoil is well known to be particularly favourable to their growth.

Much clover is ſown with great ſucceſs; and the lay is the farmer's favourite tilth for the wheat. The land is ploughed in the winter for beans, with four horſes, which plough about an acre in a day with much difficulty. The beans are drilled in rows, about twenty inches apart, as ſoon as the land will admit of it in the ſpring; they are horſe-hoed twice, and hoed and weeded by hand once. The beans are harveſted as in other parts of the county, and the ſtubbles are ploughed only once, and then ſown with wheat in October: the land is laid in flat ridges with open furrows, to carry away the water in winter. The harveſt uſually commences as early as in any part of Kent. The wheat which this iſland produces, is generally the beſt that goes to London market; it frequently weighs ſixty-four pounds, the Wincheſter-buſhel; and, from its early harveſt, is of a fine colour, and the bran of courſe is very thin. The beans alſo are a very good ſample; both the crops of wheat and beans are very large, when the land is in good order.

The clover that is ſown in this iſland is mown twice; the firſt time for hay, and the ſecond for ſeed. From the earlineſs of the ſoil, the hay is got off ſoon enough for the ſecond cutting to come in good time for the ſeed-crop. This ſtiff ſoil, with a good harveſt ſeaſon, produces frequently great crops of very excellent ſeed.

THE UPLAND FARMS OF WEST KENT.

The mode of cultivation, or rotation of crops, varies ſo much through this part of the county, that it is impoſſible to lay down any particular ſyſtem as the practice of the diſtrict; every farmer follows that plan which he thinks will anſwer his purpoſe beſt; and hardly any two neighbours adopt the ſame mode. Many that ſet out with a particular ſyſtem in view, are driven from it by an unkindly ſeaſon, and the untowardneſs of the ſoil.

The chalky lands, when under the plough, are cropped with turnips, barley, clover, and wheat, for one, two, or three courſes, and then laid to ſainfoin or rye-graſs for a few years; after which the ſame courſe is again followed. This is eaſy tillage-land with four horſes: the value of ploughing an acre is 7*s*. or 8*s*.

The clay ſoils, where they have ſettled ſyſtems and favourable ſeaſons which admit the purſuing them, are under the following courſes, viz.

Fallow,	Fallow,	Fallow,
Wheat,	Wheat,	Wheat,
Clover and Trefoil,	Clover and Trefoil,	Oats,
Wheat,	Oats,	Peaſe.

On the hill above Wrotham, &c.

Fallow, Wheat, Clover, Wheat, Oats.

They frequently ſow ſainfoin or rye-graſs for a few years, and then break up with a fallow, and purſue the ſame courſe again. This land is ploughed with ſix, and ſometimes eight horſes. Value of ploughing an acre, from 12*s.* to 16*s.*

The gravel and ſandy ſoils.

Turnips,	Turnips,	Turnips,	Turnips,
Barley,	Oats,	Barley,	Barley,
Clover,	Clover,	Clover,	Clover,
Wheat,	Wheat,	Wheat,	Peaſe.
		Oats,	

It is dry land and ploughs light; value of ploughing 6*s.* or 7*s.* per acre.

The haſſock, or ſtone-ſhatter ſoils, are under one of the following ſyſtems:

Turnips,	Turnips,
Barley or Oats,	Barley,
Clover,	Clover,
Wheat,	Wheat,
Peaſe,	Beans,
	Wheat.

This land works kindly, and is ploughed with four horſes, for about 7*s.* or 8*s.* per acre.

Coomby and pinnacky ſoils are nearly under the ſame ſyſtem as the clay already deſcribed.

The hazel-mould is frequently managed with four courſes: turnips, barley, clover, and wheat, with variations of ſubſtituting oats for barley, and peaſe for wheat; and ſometimes after wheat and clover-lay, a crop of peaſe.

On the tract of land between the borders of the Thames and the hill, the gravelly ſoils are often cropped with early peaſe, which are gathered green for the London market; and then turnips the ſame year, ſucceeded by oats, clover, and wheat, in ſucceſſion. Sometimes rye and winter-tares are ſown, to be fed off with ewes and lambs in the ſpring, and then followed by turnips, &c.

The poor chalky land of this part is cultivated as at other places, and ſown with ſainfoin; great crops of which are produced by the aſſiſtance of ſoot, aſhes, &c. from London.

The beſt land of the vallies is, much of it, under a ſyſtem of ſix courſes; namely, turnips, barley, clover, wheat, beans, and wheat.

For turnips, on the chalky and other poor ſoils, the land is ploughed in the winter, and croſs-ploughed in a dry time in the ſpring, as in other parts of the county already mentioned; and generally manured with farm-yard dung, and mould from hedges and ditches, before the third or fourth time of ploughing, unleſs manure is carried out for the preceding crop of wheat; for without the land is in good heart, the pooreſt ſorts, eſpecially, will not produce good turnips. They are fed off with ſheep, and the land, if it is ſtiff, is ſown with oats on one ploughing; and if light and kindly for barley, that grain is ſown inſtead of oats; for which the land is ſometimes twice ploughed. The clover-ſeed is ſown on both crops before the laſt harrowing; a great part of the clover is mown for hay, and then fed off the remainder of the ſummer; when it is ploughed once and ſown with wheat; for which crop a clover-lay is eſteemed here on theſe ſoils, as well as in other parts of Kent, the beſt tilth known.

The ſtiff red clays and coomby ſoils, are always ſummer-fallowed for wheat; three or four ploughings are given, as time and ſeaſons will allow; but bad ſummer-fallows are frequently made on ſuch land, notwithſtanding every exertion of the huſbandman. They are ſown as early as opportunity will admit, and the ſame rule is obſerved when cropped with oats or peaſe; for as the cultivator cannot always ſow when he wiſhes; he muſt therefore do it when he can. When theſe ſorts of land are laid down with ſeeds, what the Norfolk farmers call layers, they are ſown with rye-graſs, clover, and trefoil; they continue two or three years, and are then ploughed in the winter, and made a ſummer-fallow for wheat, with the ſame courſe as before.

The ſandy and gravelly ſoils, intended for turnips, are frequently ſown with rye, which is fed off with ſheep previous to ſowing the turnip-ſeed. This may be of great advantage to the ſheep, ſhould there be a ſcarcity of food in the ſpring; but it muſt tend to exhauſt the ſoil, and weaken the turnips, unleſs the ſheep get great part of their food by day on graſs-land, or other feed, and go to the rye by way of folding the land at night; or if the land is to be manured for turnips, there is no fear of a crop; in that caſe, the ſowing of rye may be excellent management; and indeed, every plan is excellent on theſe ſoils that tends to ſecure good crops of turnips; for that is the very eſſence and ſpirit of good huſbandry.

Not only the manure of the ſheep in feeding off the turnips on theſe looſe lands, but the treading of their feet is of great ſervice.

The barley and oats are ſown as early as poſſible, and are mown as in other parts of the county; but here they are not bound in ſheaves, but raked together by hand, and carried into the barn looſe, where they are trodden with a horſe. The clover is mown for hay, and fed after with ſheep till autumn, and then once ploughed for wheat.

The ſtone-ſhatter, loamy ſoils, and hazel-mould, are of a light dry nature, and may be worked almoſt at any time. Theſe are made into good tilths for turnips, and frequently produce fine crops without any manure. The ſooner the turnips are fed off, and the land ſown, the better the produce in general of barley and oats; although great crops are ſometimes obtained by a late ſowing, if kindly ſhowers ſoon ſucceed; but late ſowings, with a ſucceſſion of dry weather, generally fail. The clover crop and wheat ſowing are managed as beforementioned on other ſoils; only it is to be remembered, that the ſecond growth of clover on theſe, as well as all other ſoils, is ſometimes ſaved for ſeed, but not in any great quantity. When beans or peaſe are put in on the wheat-ſtubble, the operation is performed by drilling acroſs the furrow as ſoon as the land is dry in the ſpring: the crops are managed in other reſpects by hoeing, &c. as in Eaſt Kent, and the bean-ſtubble is ſown with wheat, as deſcribed in that diſtrict.

The early peaſe for gathering green, are drilled in rows, eight or nine to the rod, in the end of November, or beginning of December; they are generally ſold by the acre, to perſons who gather them, and ſend them by water from Graveſend, or by land-carriage to the London market. The pea-ſtraw, when ſtacked dry, is eſteemed very good fodder for cattle and ſheep. The land is immediately ploughed and ſown with turnips. Manure is not always, but ſhould be, carried out for peaſe, by which no time is loſt in getting the turnip ſowing forward;

ward; and the manure is by that means well worked among the ſoil, to the immediate benefit of the young turnips, which is of the utmoſt importance; for by a rapid growth, they get out of the way of their great enemy the flea.

Rye and winter-tares are ſown in great quantities near London, for ſpring-feed for early lambs; they are fed off in good time for a crop of turnips.

The general management of this diſtrict, when compared with that of many other counties, may be ſaid to be very good; but it will by no means bear a compariſon with ſome of the eaſtern parts of this county for cleanlineſs of crops, and general activity in the articles of labour; which are material circumſtances in ſeed time and harveſt.

The chalky ſoils are always ſubject to charlock; and are frequently ſeen quite yellow in June and July with that plant in bloom, overtopping the crops of corn.

THE WEALD OF KENT.

The covenants in the leaſes between landlords and tenants, point out the ſyſtem to be purſued; which is fallow, wheat, oats, clover, or layers for two or three years. The tenants are bound to lay one hundred buſhels of lime per acre on the fallows for wheat; and generally put on double that quantity.

This lime is made of chalk, from the hill before mentioned, and is brought from the diſtance of twenty miles to ſome of the pariſhes, though there is excellent limeſtone in the centre of the Weald; and even in the pariſh of Betherſden, famous for a fine limeſtone, called Betherſden Marble, chalk-lime is preferred; and the chalk to make it is procured from a conſiderable diſtance.

Chalk-lime is applied to ſtiff clay-lands, and ſtone-lime to ſandy ſoils.

The old lays are ploughed late in ſpring; generally in the month of May for the firſt time.

They are croſs-ploughed and well harrowed, as opportunity offers, during the ſummer, in dry weather.

The lime is diſperſed in heaps, of a load or two at a place, during the ſummer, and ſpread with a ſhovel out of a cart before the laſt ploughing for wheat; which is generally ſown in the month of October, and reaped in the middle of Auguſt.

The wheat-ſtubble is cleared in the autumn and uſed for thatch, littering the bullock-yards, &c. The land is ploughed ſix or ſeven inches deep, and the oats are ſown with the clover ſeed, without any other ploughing, as ſoon as the land gets dry in the ſpring. The ſoft wet clay-ſoils are generally ſown with rye-graſs and clover together. The crops of ſeeds are mown for hay, and then fed off until the land is ploughed, except in ſome caſes where clover is ſown alone on the beſt land, which is mown twice; the firſt time for hay, and the ſecond for ſeed. In the beſt land, beans and peaſe are ſown on the clover-lays, and on the old layers of graſs: peaſe frequently ſucceed; beans very ſeldom. The hazel mould and beſt ſandy ſoils are under the four courſe ſyſtem of turnips, barley, clover, and wheat. The turnips are frequently carried off the land; which ſo exhauſts the ſoil, that the clover-lays are often ploughed up for a ſummer-fallow.

ROMNEY MARSH.

The very ſmall portion of land under the plough is wonderfully productive in wheat, beans, oats, and peaſe. The quantity annually broken up is thought to increaſe, owing to the moderate compoſition taken by the clergy in lieu of tithe, and the aſtoniſhing produce of the land. The practice of ploughing, however, is not general; and the greateſt quantity in any one perſon's hands, hardly exceeds eighty acres; very few have half ſo much, and moſt of the tenants none.

The firſt crop, when the marſh-land is ploughed, is uſually peaſe; the ſecond peaſe or beans; and then wheat ſucceeded by beans, and wheat alternately for a few years, with ſometimes a variation of a crop of oats or peaſe.

SECT. IV. — *Crops commonly cultivated: their Seed, Culture, Produce, &c.*

THE crops moſt commonly grown in Kent, are wheat, barley, beans, oats, and peaſe; alſo hops, canary-ſeed, radiſh-ſeed, turnips, and colewort: theſe are the principal ones, and are found almoſt on every farm, having a ſoil adapted for them. The quantity of ſeed ſown, and method of culture, are mentioned under the title *Rotation of Crops.*

Wheat. The number of ſorts of this grain is annually increaſing, by importation from foreign countries.

Of the old ſorts, are the brown and yellow Lammas; the White Straw, Fulham, and the White or Egg Shell. The Brown Lammas, till within theſe twenty or thirty years paſt, was the ſort chiefly cultivated in this county; but it is now giving way to a variety of new ſpecies, as well as ſome of the other old ſorts.

By ſome experiments I made in the years 1777 and 1782 *, I found this the leaſt productive of the ſeveral kinds; and have never ſince ſown any of it.

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* See Annals of Agriculture, vol. 4, page 280.

This is the common brown-ſtrawed wheat; it grows with a long jointed ear, the chaff of a dark brown colour; the ſtraw is long and apt to fall; the hull or bran thin, and flour very white, and the corn mellow in grinding; for which reaſons it is eſteemed by the millers as the beſt of the old ſorts for their uſe.

The Yellow Lammas reſembles the Brown in every reſpect, except that the colour of the grain is of a yellow hue, and the chaff of a ſomewhat lighter colour.

The white ſtrawed wheat takes its name from the colour of its ear; in other counties it bears the appellation of the Kentiſh White Straw. This kind ſends out a greater number of ſtems from the ſtool, or plant, than the other ſorts; and by that means is often a very thick crop on the land. The ſtraw is generally ſomewhat ſhorter than that of many other kinds, and not quite ſo liable to fall in rainy ſeaſons. It is on theſe accounts much ſown in the eaſtern part of this county: but, from its dull colour, its having a thick bran, and often grinding very ſteely, it is not much approved of by the millers.

The Fulham alſo produces a white ſtraw, which grows ſhort and coarſe: this kind is very productive, eſpecially on poor land; but the grain is very coarſe, and the bran thick: from which circumſtances it is the leaſt valuable to the millers of any kind yet mentioned.

The White, or Egg Shell wheat, is known by its producing a white ſtraw, a ſmooth white chaff, and very white grain; the bran of which is ſomewhat thick, but the flour remarkably white. It works mellow in grinding, is very early ripe, and ſo free in the ear, as to blow out in windy weather. This kind, from rich ſandy loams, is often a beautiful ſample; and when ſo, brings the higheſt price of any ſort.

The new ſorts of wheat, which have been introduced into this county within theſe laſt twenty or thirty years, are the Hoary White, the Nonpareil, the Pilbeam, the Square Ear, and the Hoary Brown; with a variety of other ſorts very lately introduced, and but little known.

The Hoary White, by ſome called the Velvet Eared, is by far the moſt valuable, becauſe it is very productive, and the beſt for the millers uſe. The ſtraw is white and ſhort, the chaff is covered with a thick fine down, ſomewhat of a browniſh hue; the grain is remarkably ſmall, and of a dull white colour; the bran very thin, ſo that ſome grains are almoſt tranſparent when held up to the light. It grinds very mellow, and makes a beautiful fine white flour. From the quantity of down upon the chaff, and its ſmall ears binding up very cloſe in the ſheaf, this kind, in a rainy ſeaſon, is apt to vegetate very freely in the field; on which account it is not ſo proper to cultivate in a moiſt climate, and in ſmall incloſures, that are not open to the winds and ſun.

The Nonpareil is a ſort ſaid to be brought into this country from America; it has a bright ſtraw with a brown ear; and the grain is very white, large, and plump. It is very productive on all ſoils, thraſhes very free, and yields, in that operation, the greater part of its chaff; thereby producing a great quantity of horſe-meat. It grinds very mellow, and is well eſteemed by the millers.

The Pilbeam is a brown wheat, growing very ſtiff, and is generally thick on the land. The grain is ſmall and plump, ſomewhat of a yellow brown. It is ſaid to be very productive on rich lands, and is a valuable kind to mix with others, but will not of itſelf make a good loaf of bread, from its not working properly in the act of fermentation. The bakers ſay it will not riſe well after the yeaſt is put to it.

The Square Eared wheat is a very productive kind; but, from its being apt to drop out in the field before it is ripe, and, in conſequence, to blow out in gales of wind, it is not much cultivated.

The Hoary Brown is but lately introduced, and therefore little known.

Beſides thoſe already enumerated, there are the two ſorts of rivet wheat, the white and brown; neither of which are much cultivated in Kent. They both ripen late in the ſeaſon, and are ſo very coarſe and ſteely, as to be unfit for making bread, unleſs mixed with a large proportion of a better ſort of flour. They, however, produce very abundant crops on ſtrong wet lands, and are ſaleable at inferior prices.

Steeping. Salt water from the ſea, where it is convenient, and where not ſo, brine, has been till within theſe three or four years, invariably uſed in Kent for the purpoſe of ſteeping wheat for ſowing. After ſoaking it for a few hours, it is taken out, and a ſufficient quantity of lime to dry it for ſowing, is ſifted over it. In caſe of wet weather or froſt, it will keep in this ſtate for a long time without injury.

This method has been practiſed, time out of mind, with a view to prevent the ſmut or collar; but it often proves ineffectual.

Mr. Wyborn of Hull, in this neighbourhood, whoſe wheat one year, after the uſual proceſs of brining, was uncommonly full of ſmut-balls, endeavoured to inveſtigate the nature of this diſtemper; and, by a happy combination of reaſoning and experiment, diſcovered, that it was an infectious diſeaſe, and curable by arſenic. His letter on the ſubject, in the Annals of Agriculture, merits the attention of every practical farmer. It ſhould be known, however, that if the wheat ſtands much more than ten or twelve hours in the ſolution of arſenic, vegetation will be totally deſtroyed.

The time for ſowing wheat on the wet and cold lands, is early in October: on ſtiff cledge and drier clay ſoils ſomewhat cold, about the middle of that month; but the general time for the county, is the month of November. It, however, ſometimes happens, by badneſs of weather and other untoward circumſtances, that a conſiderable quantity is ſown the firſt week in December; but the more early ſowings generally produce the ſtrongeſt crops.

The growing wheat, by all good managers, is generally weeded in the months of June and beginning of July, by cutting up thiſtles and other weeds with a ſmall angular hook, and pulling up charlock and ſome other weeds by hand; that which is drilled, is frequently hoed in the month of March or April, if neceſſary. Many writers on huſbandry recommend drilling, with a view to keep the land clean by hoeing, and thereby ſupercede the neceſſity of making ſummer-fallows: but thoſe authors ſhould recollect, that if all the crops were drilled, it would require more than treble the preſent number of huſbandmen to perform the operation of hoeing them; and therefore ſummer-fallows muſt be continued, until the population is ſufficiently increaſed to clean the land without them.

The time of harveſting is mentioned under the ſection *Climate*. Chap. 1ſt.

The thraſhing of wheat is performed with a flail on an oaken floor on moſt farms of 80*l.* rent and upwards; but on ſmaller farms, on an earthen floor. It is univerſally in Kent, cleaned with a caſting-ſhovel, and flat broom, called a ſpry, which ſweeps off the chaff and white coats with the ſmall pieces of ſtraw that fly among the corn. This method of cleaning corn is certainly the moſt expeditious and beſt, where the barn-floor is large, and of a ſufficient length: but in a ſmall room, the winnowing machines will do it better, and perhaps cheaper.

In any county like this, where the ſoil is ſo extremely various, it is impoſſible to make any accurate eſtimate of the produce of the wheat crop. There are many ſituations where two quarters per acre are a very good crop; while double that quantity on ſome others, is but a very indifferent one: twenty-two buſhels per acre may probably be nearly the annual average growth. The fine white wheats, eſpecially the hoary white of this county, make moſt excellent bread of the whole meal, when properly ground and manufactured in the following manner. To a buſhel of meal, add a pint of good yeaſt well mixed with two or three gallons of warm water; ſtir the whole well together, and let it work ſix or eight hours before it is put into the oven. This is the common farm-houſe bread of Eaſt Kent; but in ſome parts, where the coarſer kinds of wheat are uſed, the broad bran is taken out.

Barley. There are only two ſorts of this grain cultivated; the common long eared Engliſh barley, and the ſhort eared ſprat-barley: the latter is only ſown on ſome of the richeſt parts of the ſoil, where the common kind is likely to grow too ſtout, and fall. This grain is never ſteeped; the quantity uſually ſown is four buſhels per acre; if a drill plough is uſed, three and a half is enough. The time of ſowing is from Candlemas to the twelfth of May, according to ſoil, ſituation, and other circumſtances. It is always weeded in the ſame manner as wheat, and the harveſt commences, for that ſown early on dry warm ſoils, about the twenty-fifth of July, and continues at different parts of the county till the middle of September.

It is always mown with a ſcythe and cradle, and in Eaſt Kent bound into ſheaves; but the Weſt Kent farmers generally carry it into the barn looſe. The produce is from one and a half to ſeven quarters per acre: the average may probably be twenty-ſix buſhels per acre.

Beans. Of this grain we have the following ſorts, viz. Common Ticks; large Flat Ticks, or May Beans; Small or Eſſex Ticks, and French Ticks: and of the garden-beans, the Toker, Windſor, Long Pod, Spaniſh or Liſbon, and Mazagan; beſides a few other varieties cultivated only in ſmall quantities for ſupplying the London ſeedſmen.

The firſt is the ſort moſt generally cultivated by the Kentiſh farmers, and is uſed for fattening hogs, and as food for horſes. Theſe are uſually either drilled, dropped by hand, or boxed, in furrows eighteen inches apart, from three and a half to four buſhels per acre, in February and March; in either caſe they are generally hand and horſe-hoed twice, and ſometimes three times, and laſtly hand-weeded. The crop is reaped about the end of Auguſt or beginning of September, and thraſhed by a flail, cleaned with the caſting-ſhovel and ſpry, and then ſifted to take out the dirt and ſmall beans. The produce is from two to ſix quarters per acre, in proportion to the ſtrength of the land and management. The May-beans are a larger ſort of ticks, and ſomewhat earlier ripe: they are ſometimes very productive; but, being larger, are in conſequence not ſo heavy, and therefore of rather leſs value per quarter. Four buſhels, and ſometimes four and a half, of this kind are dropped in by hand per acre. In every other reſpect they are managed the ſame as Common Ticks.

The Eſſex Ticks are a much ſmaller ſort than the common Tick, and of a rounder ſhape. They ripen ſix or eight days later than the firſt mentioned, and are not ſo productive, but more valuable, being heavier.

The ſmall French Ticks are a ſtill leſs ſort, being about as big as a moderate ſized pea, and nearly circular; this is the lateſt ripening ſort known, and moſt valuable when dry, on account of their great weight. It is ſaid, they will grow on ſome ſorts of poor land, not well adapted for the larger kinds; but they are not very productive. Three buſhels per acre of theſe two ſmall kinds, is a ſufficient quantity to ſeed the land when drilled; which is the beſt method by far of putting them in.

The Toker is the largeſt garden-bean, and ſomewhat of an oval ſhape. Many of them are found an inch and a half in length. The quantity of ſeed is uſually about five and a half or ſix buſhels to the acre. The beans are dropped by hand, in rows about twenty inches apart, as ſoon as the land is ſufficiently dry in the ſpring. This crop is kept perfectly free from weeds during the ſummer, and is pulled up by hand in harveſt: it is ſet up in lumps, of a ſheaf at a place to dry, in a conical form, the but-end being ſpread out as wide as poſſible, to prevent their being blown down. They are threſhed and cleaned, like other ſorts, and then culled by women, to take out every rotten and ſtained bean before they are ſent to market. The produce is ſometimes very abundant, and the price varies accordingly; the former from three to ten quarters per acre; and the latter from 8*s.* to 140 per quarter.

The Windſor bean is ſomewhat leſs than the former, not ſo long, and more approaching to a ſquare form. This kind is managed in every reſpect as the Toker, only requiring a little leſs ſeed: its produce is generally ſomewhat leſs, and value a little more.

The Long Pod is about half the ſize of the Toker; it is an earlier ſort, and much uſed by the London gardeners. The quantity of ſeed is about four buſhels and a half to the acre, always dropped by the hand in rows about eighteen inches apart. This ſort is harveſted, thraſhed, and managed, in other reſpects, the ſame as the other garden-beans, and the produce is from three to ſix quarters per acre: their value is more uniform than that of the other kinds, ſeldom arriving at any great price, being more generally cultivated, on account of their ſuperior hardineſs.

The Spaniſh, or Liſbon, is a ſtill ſmaller kind, and ripens about the ſame time. The Mazagan is the ſmalleſt of garden-beans, and earlieſt ripe.

The Spaniſh is dropped in by hand, about four buſhels and a half per acre, in rows eighteen inches apart. The Mazagan is frequently drilled four buſhels per acre. Theſe two ſorts are reaped as common beans: the produce of the firſt is from three to five quarters, and ſometimes much more, per acre; and the ſecond from two and a half to four and a half.

Oats. The ſorts of this grain are the large Poland, the Brue, the Tartarian White, the Siberian and Devonſhire Black oats, and the Red and Grey.

The Poland are ſown, about four buſhels and a half per acre, from the beginning of February to the middle of May: the firſt ſown, if the land is in good order, are always the beſt ſample, and generally the beſt crop. This kind being uſually ſown on the beſt land, the crop is hand-weeded by women and children, and it is mown with a ſcythe and cradle, unleſs too ſtout, and then it is reaped like wheat, with a ſickle. The harveſt commences for the early ſown crops, on dry warm ſoils, often by the twentieth of July, and ends, for the late ſown ones, on cold ſoils, as late as the end of September; but the general oat-harveſt is in the month of Auguſt. The crop is thraſhed with the common flail. The general produce of this kind is from three to ſix quarters per acre.

The Brue* oats take their name from a town in Holland, or Flanders, from whence they were originally imported into this country.

There are many white oats cultivated under different names in this county, as the Eſſex, the Hertfordſhire, the Twin oat, &c. all which I take to be the Brue oat. It is an early kind, and very productive on deep rich lands, and will yield a good crop on moſt ſoils that are not very poor. Four buſhels are uſually ſown per acre; the management, in other reſpects, the ſame as the Poland; the produce generally ſomewhat greater.

The Tartarian are a very late ſort, but very productive; they are extremely light, not much eſteemed, and but very little cultivated.

The Siberian Black oat is a very large, long grain; it was firſt introduced into this county about twenty-five years ago, by Mr. Reynolds of Adiſham; who alſo introduced the Turnip-rooted cabbage, which ſtill bears his name.

Theſe oats are very apt to drop out in the field, and require as good land as white oats; but, from their colour, they are not quite ſo valuable. They are leſs cultivated now than formerly. From the large ſize of the grain, it is neceſſary to ſow five or ſix buſhels per acre. They are ſown early, and are a very forward ſort. The produce is about the ſame as white oats.

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* Perhaps a corruption of Bruges.

The Small, or Devonſhire Black oats, are moſt commonly ſown on chalky downs, and, being very hardy, will grow on almoſt any poor ſoil; but, like every thing elſe, are moſt productive on good land, and ſuch as is in the beſt order. Four buſhels per acre is the common quantity ſown on the poor lands of this county; but ſome farmers, on very bad land frequently ſow more; that quantity, however, is quite ſufficient if the land is perfectly clean. This kind being very hardy, and ripening late, cannot be ſown too ſoon, provided the land is dry and in good order.

The poor chalky downs, where this ſort of oats is uſually ſown, are very full of charlock, which in very few caſes is ever taken out of the crop; but it ought always to be done; for it is quite contrary to reaſon and common ſenſe to expect poor land to produce a crop of corn and weeds at the ſame time.

The harveſting and thraſhing are the ſame as of other ſorts, and the produce on poor land is from one and a half to three quarters per acre. If ſown on tolerable good land, or on poor chalky down-land, in good order after turnips, the produce is ſometimes very abundant, even ſix or ſeven quarters per acre. The Red oats are but very little cultivated, and not much known in Kent; they are chiefly grown on the poor cold ſtiff lands: the ſtraw of them is ſaid to be particularly valuable to cut into chaff; their management is the ſame, in every reſpect, as that of the Black oats.

The Grey oats are a very long, thin, poor, light grain, and are cultivated chiefly, on account of their producing the moſt ſtraw, on very poor land, for the purpoſe of cutting into chaff for horſes. They are ſown early, harveſted and thraſhed as other ſorts, and produce on extreme poor land, where hardly any thing will grow, a tolerable crop.

Peaſe. Of this pulſe we have the following varieties commonly cultivated by the farmers, viz. the Reading and Leadman's Dwarfs, for breaking peas and fattening hogs; the Grey Polt; Nutmeg Grey; Early Dun, in Eaſt Kent, called Sutton's Greys, from their firſt being introduced by a farmer of that name; and Sheperd's Grey peaſe: all of which are for fattening hogs; beſides theſe kinds, there are many others cultivated for ſupplying the London ſeedſmen. The varieties of the Early and Marrowfat-peaſe, for the ſeedſmens uſe, are too numerous to be particularized in a general report of this nature.

All the kinds of peaſe are drilled in rows, about eighteen inches apart, from the middle of February till the end of March, and ſometimes later, when untoward ſeaſons intervene. Theſe crops are cultivated, during the ſummer, with horſe and hand-hoes, the ſame as the bean crops; and are harveſted from the middle of July till the end of September, as they become ripe. They are reaped with a hook, called a podware hook, and thraſhed as other crops of corn. The produce is from one and a half to five quarters per acre. Leadman's Dwarf and the Early Grey peaſe, are thought to be the moſt prolific.

The Early Charlton and Hop-ſpur peaſe frequently are off the ground in time to get a good crop of turnips.

Hops are ſeparately deſcribed, under the title of *Canterbury and Maidſtone Plantations, &c.*

Canary Seed. There are three kinds of tilths for this crop; viz. ſummer-fallow, bean-ſtubble, and clover-lay; the laſt the beſt. If the land is not very rich, a coat of rotten dung is frequently ſpread for it. Whether manured or not, the tillage neceſſary is to plough the land the firſt opportunity that offers after wheat ſowing is done; and, as ſoon as the land is tolerably dry in the ſpring, furrows are made about eleven or twelve inches apart, and the ſeed is ſown broad-caſt, about four or five gallons per acre, and well harrowed in; when the blade appears, and the rows are diſtinct, the intervals are immediately hoed with a Dutch hoe, and afterwards, in May or June, the hoeing is repeated with a common hoe; carefully cutting up every weed, and thinning the plants in the furrows, if they are too thick. It is cut in the harveſt, which is always later than any corn-crop, with a hook, called a twibil, and a hink; by which it is laid in lumps, or wads, of about half a ſheaf each.

The ſeed clings remarkably to the huſk; and, in order to detach it, the crop muſt be left a long time on the ground to receive moiſture ſufficient to deſtroy the texture of the envelopement, otherwiſe it would be hardly poſſible to thraſh out the ſeed. The wads are turned from time to time to have the full benefit of the rains and ſun; it has ſometimes continued in the field till December without vegetating, or ſuffering any kind of injury.

The produce is from three to five quarters per acre; and it is ſold to the ſeedſmen in London, who ſend it to all parts of Europe for feeding ſmall birds, which are kept in cages. The offal of this article is a moſt excellent food for horſes.

Radiſh Seed. This crop is much cultivated on the beſt rich loamy ſoils of Thanet and Eaſt Kent, for ſupplying the London ſeedſmen. The land ſhould be clean, full of manure, and ploughed a good depth in the early part of the winter. The ſorts are the early Short Top, the Salmon, and the Turnip-rooted.

The ſeed is ſown on furrows, about ten inches apart, in a dry time in the month of March, about two or three gallons per acre. As ſoon as the plants appear, every other row is cut up with a horſe-hoe, leaving the rows twenty inches apart. When the plants get two or three rough leaves, they are hoed out in rows, and are then kept clean by repeated horſe and hand-hoeing, when neceſſary, leaving the plants at about eighteen inches diſtance. The crop is ſeldom fit to reap till October, and ſometimes is out in the fields till Chriſtmas, without receiving injury from wet weather; it being neceſſary that it ſhould have much rain to rot the pods, that it may thraſh well. The produce is from eight to twenty-four buſhels per acre: and it is ſold to the London ſeedſmen, who ſend it to all parts of the kingdom for retailing to the gardeners.

Turnips. This plant is more ſown with us every year. Thirty years ago, hardly one farmer in a hundred grew any; and now there are few, eſpecially in the upland parts, that do not ſow ſome every year. The preparation for turnips is to plough the land in the winter, and two or three times more, as opportunities offer, during the ſummer months; and to manure before the laſt ploughing with farm-yard dung, mixed with mould collected from hedges and ditches, unleſs the land was manured for the preceding crop of corn.

If the land is not in good heart, it will not produce good turnips.

The ſorts of turnips are the Red, White, and Green Round, the Tankard and Tap-rooted turnips. The firſt is moſt generally preferred; but the other kinds have each their reſpective advocates. The Tankard ſtands high above ground, and is a good ſort to feed off before the froſt ſets in; after that, they are not ſo uſeful, being more liable to injury from froſt than other ſorts. The Red Round is eſteemed a very hardy kind.

The time of ſowing commences, on poor lands, in the end of May; but the general ſowing is about New Midſummer-day: good crops are, however, often obtained by ſowing the laſt week in July, and ſometimes the firſt week in Auguſt; the lateſt ſown are the ſweeteſt, and ſtand the froſt beſt.

This crop is always hoed by hand, at the expence of from 6*s.* to 7*s.* per acre: ſometimes a ſecond hoeing is given, at half price.

The principal, and by far moſt profitable application of this crop, is to fold them off with ſheep. Some few are drawn and carried away for fattening cattle, either by ſtrewing them on graſs-land, or ſtall-feeding; but this is terribly deſtructive to the land from whence the crop is taken.

Cole Seed is much cultivated on the poor lands of the eaſtern part of the county, under the ſame management as turnips; but it is ſeldom hoed, and conſequently much over-run with charlock Sometimes, although rarely, it is ſown for ſeed; but is moſt commonly fed off with lean flocks of ſheep. Cattle and ſheep, when poor, are very ſubject to be blown (burſted) with eating greedily of this plant.

Sect. V. — *Crops not commonly cultivated.*

There are ſeveral other ſorts of grain and ſeeds which are not ſo generally cultivated as thoſe mentioned in the preceding ſection, but which are productive and profitable in certain diſtricts, under proper management; and which I ſhall arrange by themſelves. Theſe are tares, clover, trefoil, ſanfoin, lucern, burnet, ſpinach, kidney-beans, creſſes, muſtard, potatoes, flax, woad, madder, and cabbages.

Tares. Of this grain there are two kinds; the winter and ſpring tare. The firſt is ſown in the middle and end of September, about two buſhels per acre, upon land that has borne a crop of any ſort of grain, either to feed off with cattle and ſheep in April, or to mow for ſoiling in May. The ſpring tares are ſown and drilled as peaſe, early in the ſpring, either for ſoiling in July and Auguſt, or to ſtand for a crop of ſeed; the produce of which is from twelve to ſixteen buſhels per acre on poor land; and on that of better quality a little more. This grain is ſeldom ſown on the beſt land, on account of its running too much to ſtraw.

I learn from a note, ſigned T. H. that the ſowing of winter and ſpring tares, to fold any ſheep on in the ſpring and ſummer, is among the greateſt improvements at preſent on the ſtrong ſoil of the Weald of Kent, where turnips hardly ever anſwer; and that the ſheep thrive and improve greatly, if allowed a ſufficient quantity of that food; the land at the ſame time becomes an excellent wheat tilth *. The ſame perſon obſerves, from the information of a ſenſible intelligent farmer of Tunbridge, that folding on clover has there turned to a ſtill better account.

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* Without impeaching this practice on the ſtrong ſoil of the Weald, I have to obſerve, that I have often tried it on both ſtiff and light ſoils, and have invariably found it a bad tilth for wheat. *Editor.*

Clover. The common red clover, the ſort called Cow-graſs, and the white, commonly called Dutch clover, are the only ſorts cultivated in Kent. They are all ſown among barley or oats, in the ſpring, upon land that is clean and in good order. The firſt ſort is ſometimes mown three, or even on rich warm ſoils, four times in the ſummer; but the general cuſtom is to mow the firſt growth, and feed the remainder; or to feed it at firſt till the beginning of June, and then ſave it for a crop of ſeed.

Sometimes two crops of hay are taken; and much clover on poor land farms is fed off with flocks of ſheep, entirely folding the land over for wheat; for which crop no tilth whatever is ſo good.

A crop of clover ſeed is uſually from two to four buſhels per acre: ſometimes, however, the extraordinary quantity of eight buſhels has been obtained. This is a biennial plant.

Cow-graſs is a ſpecies of clover, which is mown only once in a ſummer. This plant is perennial.

The white, or Dutch clover, is found in almoſt every meadow in this county; it is cultivated on ſome farms for ſupplying the London market; where, for theſe few years paſt, there has been a great demand for it. All the ſorts are mown for ſeed with a ſcythe, and the ſeeds are thraſhed off with a flail from the ſtraw, and then ground in a mill, or worked out with flails, at about 4*s*. or 5*s*. per buſhel. The produce is from two to ſix buſhels per acre.

Trefoil is ſown in the ſpring, with the crops of barley and oats, about two gallons of ſeed per acre; the crop is fine food for ſheep to graze in the ſummer months, on chalky and other poor dry ſoils. When it is intended for ſeed, the crop is mown about the firſt or ſecond week in July; and it is frequently thraſhed off the ſtraw in the field on a ſail-cloth, and then ſold by the quarter to perſons who have mills and collect it, who grind the ſeed out of the huſk, and then ſell it to other merchants in the different towns and villages, for retailing to the farmers in thoſe counties where it ſeldom is ſaved. The produce in the huſk is from two to ten quarters per acre, and each quarter produces about two buſhels of clean ſeed.

Sainfoin. This is the moſt valuable of all the graſſes cultivated in this county: and is much grown on the chalk-land of the eaſtern part: it is ſown among Lent-corn on clean land, at from four to five and a half buſhels per acre; it is mown for hay in June, and its produce is from ten to ſixty hundred weight of dried hay, fit to ſtack, per acre. Thoſe who cultivate this plant ſhould obſerve, that if it is fed off with ſheep, it is very ſoon deſtroyed; whereas, if ſown on clean dry land, after a good ſummer-fallow, and preſerved from ſheep, it will laſt in the ground ten or twelve years. The aftermath is excellent to feed cattle, and the produce is ſometimes very abundant.

Lucern. This is a very valuable plant to cultivate on dry lands for ſoiling horſes in the ſummer months; but it is ſeldom made into hay. The tillage required for it is a well made ſummer-fallow, ploughed as deep as poſſible, with a good covering of manure. It is generally ſown with a thin crop of barley, from 16 to 20 pounds per acre: coal-aſhes or ſoot are ſown over the crop in the ſpring, and ſometimes a covering of rotten dung is ſpread upon it early in the winter. The produce from dry good land is very abundant, and four crops are uſually obtained in a ſummer.

Burnet is very little cultivated; it grows naturally on chalky ſoils, and affords herbage in the winter and ſpring months; but it is not much liked either by cattle or ſheep. It is ſown, about one buſhel and a half or two buſhels per acre, among barley or oats; it is mown for ſeed in July, and being very ſubject to drop its ſeed before it is ripe, it ſhould be mown early. It produces from eight to twenty buſhels per acre.

Spinach Seed is grown in the Iſle of Thanet and Eaſt Kent, to ſupply the London ſeedſmen. There are two ſorts, the prickly and the round; both are ſown in furrows, about twelve or fourteen inches apart; the prickly, ſix gallons per acre, and the round four. Early in March, when the plants have leaves about an inch or two in length, they are hoed out to the diſtance of four or five inches. When the crop is in full bloom, the greater part of the male plants are drawn out by hand, and given profitably to young pigs; by which operation, the female plants have more room to grow, and perfect their ſeed. The crop is pulled up when ripe, and thraſhed in a field on a cloth, or carried to the barn. The produce is from two to five quarters per acre.

Kidney Beans are much cultivated about the town of Sandwich, and in the Iſle of Thanet, for ſupplying the London ſeedſmen. The tillage for the crop is the ſame as for a crop of beans or peaſe; and the manure is rotten dung ploughed in. There is a great variety of ſorts; thoſe chiefly cultivated are, the black ſpeckle, the Canterbury dwarfs, the white dwarfs, the red ſpeckle, the ſcarlet, and the white Dutch runners. From five to ten gallons per acre, is the quantity of ſeed to drop in an acre of land, in proportion to the ſize of the ſort; the ſmaller the bean, the leſs quantity. The time of planting this crop is from the eighth to the twentieth of May; if earlier, it is in danger of being deſtroyed by a froſty morning. It is hoed and kept perfectly clean from weeds, and harveſted, by being pulled up by the roots as the plants become ripe, in autumn. The early ſorts are fit by the end of Auguſt, and the late ones are frequently not ripe till October; thoſe which ripen late, and are in danger of being hurt by wet weather, are frequently tied up in ſmall bunches, and hung upon poles to ripen, and, when thoroughly dry, are thraſhed and ſent to market. The produce is from ten to twenty buſhels per acre.

Creſſes and White Muſtard are ſometimes ſown for the London ſeedſmen. The method of tillage is to harrow the ploughed land, and ſtrike furrows about eleven or twelve inches apart, and then ſow the ſeed, two or three gallons per acre, in March. The crop is hoed and kept clean from weeds, and is reaped in July, and thraſhed on a ſail-cloth in the field. The produce is from eight to twenty buſhels per acre.

Potatoes. This crop is more cultivated by the farmers every year. Various methods of tillage are uſed for this plant; in general, dung is ploughed in, and then furrows are made, twenty inches apart, with a plough, in which pieces of potatoes are dropped, about fourteen inches aſunder, by hand, and are then covered by ſplitting the furrows. Sometimes they are covered with a planting-hoe. The other methods uſed, are dibbling them in, and dropping the pieces of potatoes in every other furrow after the plough, while ploughing in the dung. The quantity of ſeed is about ſix ſacks per acre, each weighing near two hundred pounds. The time of planting is from March to the firſt week in

May. The crop is taken up by ſplitting the furrows with a plough, while women and children pick up the potatoes, and put them into ſacks. Sometimes the crop is dug up with forks by the ſack, for ſixpence each. The produce is from eighty to one hundred and fifty ſacks per acre. There is a great variety of ſorts in cultivation; but thoſe chiefly uſed, are the white kidney, the early brown, the champion, and the peach, with the Surinam, called here the hog-potatoe.

The method of keeping them is, to lay them up in out-houſes, well covered with wheat-ſtraw; but it is ſaid, that it is much better to bury them in ridges in the field, firſt covering them with ſtraw, and then with mould.

Large quantities have been cultivated by ſome farmers in this county, for ſtall-feeding cattle, and for feeding hogs; and favourable accounts have been related of this practice; but from the obſervations I have made on the ſubject, I cannot ſpeak in favour of it; to me it appears to be an unprofitable practice.

Flax. The beſt tilth for this crop is a ſummer-fallow, and next to that, a clover-lay: it is often ſown after wheat and beans.

The land is ploughed in the winter, and in March is harrowed fine, and the ſeed is then ſown at the rate of two buſhels and a half per acre. It is weeded by hand in the month of May, and pulled up in July; the expence of which, with turning and binding into ſheaves, is 16*s.* per acre: the length is from two to two feet and a half; but it is of little value when of the ſhorteſt length.

The produce of ſeed is from eight to twelve buſhels; and of flax, from one to two packs of 240 pounds each, per acre.

The quality of the flax of this county is like that which is imported from Holland; but ſomewhat inferior.

When the ſeed is beaten off in the barn, the ſtraw is taken to the ditches in ſmall bundles, where it lies from ten to fourteen days, to prepare it for ſwingling. The better the flax, the more watering it requires; and the warmer the water, the ſooner it ripens; but if it lies too long, it is ſpoiled.

The expence of ſwingling is 2*s*, 4*d.* per ſtone of fourteen pounds weight.

A bounty of 4*d.* per ſtone is paid by government to the cultivator.

Woad. This plant is much cultivated in the weſtern part of this county on poor, ſtiff, and on ſome chalky lands. It is ſown, about ten or twelve lb. per acre, among beans before the laſt hoeing, in the beginning of July. It requires no culture while growing, except the land is foul, and over-run with weeds; in which caſe, the weeds muſt be drawn out by hand, or cut up with a narrow hoe. When the plants have produced their bloom up to the top of the ſtem, it is time to pull them up, which generally happens by the firſt week in July; they are then tied up by a ſingle ſtalk in ſmall handfuls, and ſet up in a conical form to ripen; and, when thoroughly dry, the ſeed is ſhaken out on a cloth, or into a tub; the plants are then bound with rope-yarn into bundles, each weighing thirty pounds; ſixty of theſe bundles make a load of woad, which ſells from 4*l.* to 10*l.*

It is often ſo great a drug, that it lies in ſtacks or in barns for ſeveral years, for want of a market; and it has ſometimes been ſo very ſcarce, as to ſell for above 21*l.*

per load. The produce is from half a load to a load and a half per acre.

It is generally ſold by the growers to ſpeculating merchants, who ſupply the dyers with it, as opportunities offer.

Madder. This is a plant alſo uſed by the dyers, which has been formerly much cultivated in the eaſtern part of this county; but I believe is now entirely given up.

The firſt cultivation of it in Kent, upon a large ſcale, took place in the vicinity of Faverſham; the value of it being at that time 5*l.* per cwt. There was a tolerable proſpect of its becoming a private and public benefit; but the Dutch, foreſeeing the detriment this ſpeculation might occaſion to their ſale of the plant, contrived to overſtock the London market; which proved deſtructive to the plan and its ſpirited projector. I am neverthelefs firmly perſuaded, that good crops of excellent madder may be raiſed in Kent, on ſoils properly adapted for the purpoſe, and that it would be a profitable article of culture, if it were never under 3*l.* per cwt. nor would the buyers be injured by a reſtriction to this price; but then the legiſlature muſt interfere to prevent the importation of the root from Holland, where it can be cultivated cheaper than here. Perhaps, if that country ſhould continue unfriendly to us, it might be good policy to encourage the growth of madder at home. I have many years been in the habit of cultivating it; but, from the low price at market, have been obliged to abandon it. There have been ſeveral modes of planting practiſed; but that which appears to me the beſt, is to plant it in ſingle rows, about two feet apart. The land ſhould be perfectly clean from weeds, and have been well manured the preceding year, ſo that the dung may be well incorporated with the ſoil; which ſhould be a fine deep, rich, ſandy loam, without any redundancy of moiſture. In order to prepare the land for planting, it ſhould be ploughed in the autumn, to have the benefit of the winter's froſt, and harrowed in dry weather in the ſpring, and then kept clean by horſe-hoeing until the plants are ready for drawing, which is uſually by the end of May, or beginning of June: the proper time is known by the plants having got to the height of ten or twelve inches from the ground, and having produced roots branching out from the bottom of the ſuckers; which will be perceived by drawing up a few of them. When the ſuckers are in this ſtate, all hands neceſſary for this work are to be provided, that the operation may proceed with every poſſible diſpatch. One acre requires about twenty thouſand plants. The plants ſhould have about a third of their tops cut off, and then their roots ſhould be dipped in earth, or fine mould and water, beaten together to the conſiſtence of batter; which prevents the neceſſity of watering them. It requires one woman to dip the plants, two others to carry and ſtrew them in handfuls along the furrow, and about ſeven to follow the plough. The land ſhould be ploughed, with a ſtrong turnwreſt plough with ſix horſes, twelve or fourteen inches deep; women attend to lay the plants about eight or nine inches apart in every other furrow, leaning off from the plough; by which, every time the plough returns, the row of plants laid in by women who follow the plough, are covered with the earth of the furrow.

The crop muſt be kept perfectly clean by the hoe and hand-weeding during the ſummer months, and earthed up with a plough each autumn until the third after planting, when the roots are dug up by trenching the land two feet deep. Two children, about eleven or twelve years of age, attend each digger, to pick out the roots, the workmen breaking every ſpit of earth to pieces with their ſpades. The roots are then carried to be cleaned from dirt, and afterwards dried on a hop-kiln till they are brittle enough to ſnap aſunder freely; they are then fit to pack in bags for ſale to the dyers, who grind and manufacture them into powder for uſe. The produce is from eight to twenty hundred weight per acre.

Cabbages. The culture of this vegetable for cattle or ſheep, is but very little practiſed; a few trials, however, have been made; but the expence of from 12*s.* to 20*s.* per acre for tranſplanting, and the general idea which prevails of their being a very exhauſting crop, are circumſtances which greatly tend to prevent their becoming an article of general cultivation. They are highly recommended by ſome, to large flock-maſters, by way of ſecuring food in very hard winters, when turnips cannot be uſed, from being covered with ſnow, or when they may have become rotten by hard froſt.

The tillage neceſſary, is to plough the land in the winter, ſix or ſeven inches deep, and to croſs-plough it in the ſpring in a dry ſeaſon; and then, after manuring with a good covering of rotten dung, before planting in June, to plough it again, turning over a furrow ten inches wide, and then by planting every third furrow, the rows of cabbages will ſtand two feet and a half apart. The ſort for cattle or ſheep is the large drum-head, which in good land will grow to an immenſe ſize. The ſeed ſhould be ſown the laſt week in March, on a rich warm border of light ſoil, where the plants may remain till a ſhowery ſeaſon in June, when they ſhould be tranſplanted with ſmall iron trowels, in the following method:—The plants being ready drawn from the ſeed-bed, a woman attends in the field to dip the roots of the plants in fine mould and water, beat together to the conſiſtence of batter; two others then carry them in handfuls, and ſtrew them in ſmall lumps along the furrows ready for the planters; ſeven men will keep theſe three women fully employed: they thruſt their trowels with their right hand into the land, in a diagonal direction, with the point towards them, and then, by pulling the handle of the trowel a little towards them, the earth is lifted ſo as to leave a ſpace to put in the plant with the left hand; the trowel is immediately drawn out, and the earth preſſed cloſe to the root of the plant with the handle. The land being ploughed ſtraight, and left unharrowed, there is no occaſion for lines to direct the planter. By rolling the ſurface, after the plants are in, the work is finiſhed. In July and Auguſt the crop muſt be kept clean by horſe and hand-hoeing.

Turnip-rooted Cabbage. This kind was firſt introduced in general culture by the late Mr. Reynolds, of Adiſham, in this county, for which he obtained a medal of the Society for the Encouragement of Arts and Sciences, many years ago. It is a moſt valuable plant; and every farmer who keeps ſheep, ſhould have a ſmall piece to eat off in the month of April, after turnips are gone, and before there is a plenty of other herbage. The ſevereſt winters do not hurt it; and it produces a great quantity of nutritive and wholeſome food; it is however an exhauſting crop, and expenſive to get out of the ground; but its great value, as a plentiful ſupply of good food for ſtock, when, in ſome ſeaſons, there is nothing elſe to be had, is more than ſufficient to counterbalance every thing that can be ſaid againſt it. The time for ſowing the ſeed, its culture, &c. are the ſame as before mentioned for cabbages.

CHAPTER VIII.

GRASS.

SECT. I.—*Natural Meadows, Paſtures, and Marſh Land.*

THE quantity of land in natural meadow, or upland mowing ground, is very ſmall in Eaſt Kent, in proportion to the extent of that part of the county, or in proportion to the hay-meadows of many other counties. The greater part of the hay of Eaſt Kent, even that which is uſed for horſes, is produced in the marſhes, from a want of a ſufficient portion of meadow-land.

The Weald of Kent abounds in this deſcription of graſs-land, which produces a vaſt quantity of excellent hay, of a quality ſufficient to fatten ſome of the fineſt oxen in the kingdom.

The other parts of the county have here and there ſmall parcels of meadow-land, ſome few of which are of good quality; but in general the hay-meadows of Kent are much inferior to thoſe of many other counties; and this perhaps may be the reaſon why there is ſo ſmall a portion of this kind of graſs-land in this county.

Paſtures for keeping ſmall dairies are found on every farm; but there are no dairy-farms of any great extent in this county. The farmers in the upland parts, in general, deſire no more paſture-land on their farms than is neceſſary for the keeping a ſmall dairy for ſupplying their families with milk and butter, and a little freſh butter for ſale. Cheeſe and ſalted butter for ſale, are ſeldom or never made to any extent. The markets for corn being ſo exceedingly eaſy of acceſs, by means of the navigable rivers and the ſea, tillage is thought more profitable than grazing on dry lands; which, if they were laid to graſs, would produce but a ſcanty herbage for cattle.

The downland ſheep-walks, which abound on the chalky hills of Eaſt Kent, can hardly be called paſture.

The marſh-lands are ſituated along the borders of the rivers and the ſea-ſhore. This ſort of graſs-land is of a very conſiderable extent.

Romney Marſh contains	— 44,000 acres
Borders of the Stour,	about 27,000
of the Medway,	about 11,500
of the Thames,	
and the Swale, &c.	

the whole is uſed either for fattening cattle and ſheep, or for breeding of ſheep.

The ſyſtem of management of Romney Marſh, is that of breeding, rearing, and fattening ſheep; the practice of feeding lean cattle, and even fattening ſome of the ſmalleſt ſorts of Welch ones, is only made ſubſervient to the principal object, ſheep-grazing; merely to take off ſuch graſs as runs away from the ſheep in a growing time; it is always conſidered extremely bad policy to ſee much graſs on the land among ſheep. Every grazier, whoſe buſineſs is complete, has two ſorts of land; namely, breeding land and fattening land. The breeding land is ſtocked with ewes in the autumn, for the winter: every field has ſuch a number placed in it as the occupier ſuppoſes it will keep; which is from two to three and a half per acre, in proportion to the ſtrength of the field.

In kindly growing ſummers it is particularly neceſſary to keep a ſtrict watch on the graſs, that it may not run away from the ſheep, and to prevent it by adding more ſheep, or any other ſtock that can be had to keep it under; for if it is ſuffered to run from the ſheep, they are much injured, and the graſs gets coarſe. Upon ſuch occaſions, cattle are generally taken into keep at very low prices.

A very few oxen are fattened, which are bought in from the plough-teams of the wealds of Kent and Suſſex. They are very large, and have a reſerve of the beſt graſs to themſelves. From their ſize, they require a longer time to get fat than the ſmaller ſorts: they uſually weigh from forty-five to ſeventy ſcore each.

Some of the other marſh-lands of Kent are uſed nearly in the ſame manner; others are grazed by Welch bullocks for fattening: and in ſome parts the graziers buy the lean ſheep from the flocks of Eaſt Kent, and fatten them for Smithfield, or other markets.

The land of this county is ſeldom changed from meadow to arable, or from arable to meadow. The dryneſs of the ſoils of the upland parts of the county, occaſions the land to be but badly adapted for meadow: when once a field is become a good old meadow, it is held ſacred; and it is a common covenant in leaſes, not to break up old graſs-lands,

SECT. II.—*Artificial Graſſes.*

FOR laying land down to either meadow or paſture, the common practice is to ſow hay-ſeeds, which are the ſweepings of hay-lofts, procured in London at from 10*d.*

to 1*s.* 3*d.* per buſhel; theſe are ſown in the quantity of about ten or twelve buſhels per acre, and ten or twelve pounds of white clover-ſeed, under barley, on land that has been made perfectly clean by a ſummer-fallow.

By this mode it frequently happens that very bad ſorts of graſſes are raiſed, and the farmer's hopes of a good paſture are totally deſtroyed. It is, therefore, a much better method, and indeed the only good one, until the beſt ſorts of graſſes are cultivated for ſale, to ſave for ſeed a piece of fine old meadow that is known to abound in the beſt ſorts of graſs, by letting it ſtand about three or four weeks longer than it ſhould, when intended to be mown for hay. When it is mown and ripe, let it be thraſhed on a ſail-cloth in the field, and immediately ſown on the piece of land intended for the new paſture; which ſhould, by a good ſummer-fallow, be brought into fine tilth to receive the ſeed. This, with ten or twelve pounds of white clover, will make an excellent meadow.

The culture, with the turn-wreſt plough, leaves the land ſo perfectly clean, that no inſtructions are neceſſary here; only ſimply to harrow the ſeed in and roll the land down ſmooth frequently, until the graſs is well matted, and the land becomes firm enough to bear the tread of cattle.

There are many plants which, by ſome, are called Artificial Graſſes; ſuch as Sainfoin, Clover, Trefoil, Lucern, Burnet, &c. As theſe are treated of under *Crops cultivated*, it is needleſs to mention them here.

SECT. III.—*Hay-making.*

THIS operation is very badly conducted in moſt parts of this county, owing perhaps to a ſcarcity of hands.

On the early upland meadows, the hay-harveſt commences by the end of June, and continues, on different ſoils, during the whole of July and beginning of Auguſt. The common mode in the eaſtern part of Kent, is to let the graſs lie a day or two in the ſwath, and then turn it over; ſome ſpread it all over the land, turning it at intervals, until it is ſufficiently dry to ſtack. The very excellent method of putting it up into ſmall cocks every evening, increaſing their ſize as the hay becomes dry, is not ſo much attended to as it ought to be.

Clover for hay requires to be made more dry than graſs; for if the ſap is not thoroughly dried up, it often heats too much, and is ſpoilt. Sainfoin alſo requires to be well dried, but not quite ſo much as clover; they neither of them are apt to fire in a ſtack; but, frequently, if carried too green, will burn to a coal. Large ſtacks being apt to heat more than ſmall ones, it is neceſſary to carry the hay, of whatever kind, ſo much the drier; and if proper attention is paid, and the weather will admit a large quantity being carried together perfectly dry, there is no occaſion for any chimnies being made; but when, from apprehenſions of approaching bad weather, it is hurried in too ſoon, then chimnies made, by drawing up the ſtack as it aſcends, a baſket or a ſack ſtuffed with hay, will certainly prevent any danger of fire. When, by means of rainy weather, the hay of any ſort has been much waſhed, and cannot be got in in good order, a layer of dry wheat-ſtraw between every load or two, and a ſmall ſprinkling of ſalt, are often uſed with great advantage. Bullocks are ſaid to thrive very faſt on ſalted hay.

SECT. IV. — *Feeding.*

THE ſyſtem of grazing in the marſh-lands of the Iſle of Thanet and Eaſt Kent, is generally to buy in lean cattle and ſheep, and keep them till they are fit for the butcher. The cattle are principally bought out of the Welch droves, and the ſheep from the fold-flocks in the vicinity.

The graſs that is mowed for hay is uſually ſet up in ſtacks, either in the marſhes near a foddering-lodge *, or carried home to the farm-yards on the borders of the marſhes, and given to fattening bullocks, or ſold to the inn-keepers at Margate or Ramſgate.

The grazing in Eaſt Kent, on the upland farms, if it may be called grazing, is that of feeding flocks of lean ſheep on the downs and ſeeds, folding them every night. Theſe are bought in wether-lambs in Auguſt, and ſold out lean, when about two years and a half old, to the fattening graziers. Some farmers of late years, by ſowing many turnips, make their wethers fat, and ſell them to the butchers in the ſpring.

The upland paſture is wholly employed in breeding lambs, or feeding young lean ſheep. Theſe fields are generally ſo poor, as to keep only one or two breeding ewes per acre, or two or three tegs †.

The inferior parts of the marſh-land are uſed in the ſame way; but the beſt fatten a great number of ſheep, and many head of cattle.

The feeding of the graſs-lands of the weſtern part of the county, is done in various ways. Some have dairies of ſix or eight cows, which are of mixed breeds, between the Staffordſhire, Welch, and Suſſex.

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* Shed.

† Sheep of a year old.

Some of the ſmall dairies of three or four cows, have the Welch ſort only; and there are farmers who fatten a few Welch cattle on the beſt of their meadow-lands with hay and graſs in the winter.

A flock of ſheep under a ſhepherd, and folded at night, is a very rare ſight in Weſt Kent; it is only a a very few of the largeſt farmers who follow that practice.

Many farmers of this diſtrict have ſmall parcels of different ſorts of ſheep, chiefly either Wiltſhire or South Down, for feeding on ſuch graſs land as is not uſed for the dairies, or fattening cattle.

The grazing of the Weald of Kent, is to rear young cattle, which are put out to keep to the Romney-Marſh graziers in the ſummer. In the autumn, they are taken home to the layers and inferior graſs-lands; and in the winter to the ſtraw-yards, or ſtay out on rough lands, and have ſtraw carried to them; when they are of age to fatten, which is at four years for ſteers, and three for heifers, they have the beſt graſs with hay. That which is made of rye-graſs and clover, is given at the firſt part of the winter; and the beſt hay of the farm is uſed to finiſh them. Old meadows are always mown for hay to fatten the oxen.

The inferior paſtures are ſtocked, firſt with milking-cows to take off the head graſs, and afterwards with the lean cattle, or working oxen. A ſuit of fields are thus fed in rotation during the ſummer.

A great number of Romney-Marſh lambs are taken into keep in the winter, on the ſtubbles, old layers, and meadows; the price of keep is from 2*s.* to 2*s.* 6*d.* per ſcore, per week. Theſe lambs are returned the 5th of April, and in bad winters, frequently go home nearly ſtarved; from which they ſometimes die in great numbers when they get into good keep. Great loſſes are likewiſe often ſuſtained after a wet autumn, by the rot.

The layers of rye, graſs, and clover, are mown for hay, which is uſed for the plough-teams and lean cattle; and ſome of the beſt is given to fattening bullocks in the beginning of the winter. The old meadows produce great crops of hay, which is of a very fattening quality. Bullocks fed thereon, frequently weigh from forty to forty-five ſcore each; and ſome old working oxen attain the weight of ſixty ſcore, and ſometimes much more. The fat oxen are commonly ſold between the months of March and June. The ſale of them is the chief dependence of the Weald farmers for payment of their rent, and other heavy expences.

CHAPTER IX.

GARDENS AND ORCHARDS.

IN the vicinity of all the great towns, there is a portion of land appropriated to the culture of vegetables. In the neighbourhood of Graveſend and Deptford, a very great quantity is raiſed for the ſupply of the metropolis. Of aſparagus there are many fields, containing ſeveral acres each. To deſcribe the numerous tribe of vegetables, their culture and produce, would far exceed the limits of this Work. It may perhaps be ſufficient to report, that fine rich land, conveniently ſituated near great towns for this purpoſe, lets from 4*l.* to 10*l.* per acre.

In the neighbourhood of Maidſtone are a great number of ſmall fields, of from one to ten acres, and ſomewhat more, planted with fruit of different kinds, for which the rocky ſoil of the neighbourhood ſeems particularly adapted. The eaſy water-carriage to the metropolis from the Medway, up the Thames, renders the growth of fruit a very profitable article of huſbandry. The beſt method known here for raiſing orchards of apples and cherries, and plantations of filberts, is to plant them among hops, by which they very ſoon come to perfection: the conſtant culture of the land for the hops, with the warmth and ſhelter they afford the young trees, cauſes them to grow with great luxuriance*. It is a very common practice to plant hops, apples, cherries, and filberts, all together. Eight hundred hop-hills, two hundred filberts, and forty apple and cherry-trees per acre. The hops ſtand about twelve, and the filberts about thirty years; by which time the apples and cherries require the whole land.

Sometimes apples and cherries are planted in alternate rows, with two rows of filberts between each of them.

There are ſome plantations of filberts raiſed among hops, without any other trees.

The method of planting apple and cherry-trees, is to dig holes about two feet ſquare, and two ſpits deep, taking out the rocks, and turning down the ſurface-ſoil on which the young trees are placed, and the remainder of the earth is trodden down cloſe about the roots: they are ſupported by ſtakes until they get ſufficient ſtrength not to be hurt by gales of wind. A compoſition of lime and night-ſoil is, with a bruſh, painted on the ſtems of the young trees; which is ſaid to promote the growth of them exceedingly.

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* This is erroneous. It is a bad practice; for cherries do beſt when early laid down to paſture. Apples, and filberts, and hops, together, where the ſoil is kindly for filberts, are planted; or apples and hops if not; or apples, cherries, and hops, if intended to be laid down early to paſture: and in a few inſtances, filberts and hops only. But filberts anſwer well on very few ſoils. *Note by a Middle Kent Farmer.*

The favourite ſorts of apples for cyder, are the golden rennet[†], ſharp ruſſet, golden mundy, kernel-permain, and the ſtire-apple: for domeſtic uſes, the lemon-pippin, or quince apple, Farley-pippin, royal ruſſet, ribſtone pippin, Holland pippin, pigſnout, walling, loans permain, nonpareil, golden pippin, French pippin, Kentiſh pippin, and golden nob.

The cyder-fruit generally hangs on the trees until the twentieth of October, and is then gathered and laid in heaps[‡] under cover; the early ſorts, a month, and the later ones from one to three months, to ripen; it is then ground and preſſed, and the juice put up into caſks. In plentiful years, cyder-fruit ſells for 14*d.* and in ſcarce years, up to 2*s.* per buſhel.

Mr. Stone, of Maidſtone, is a cyder-maker of great repute, and in a very extenſive line of buſineſs; being called upon in this Survey, he, with great liberality, offered to communicate any information for the benefit of ſociety. His warehouſe, mill, preſs, and vaults, were contrived by himſelf, many years ago, with great ingenuity, and are exceedingly convenient.

[†] It is a remarkable circumſtance, that notwithſtanding the golden rennet has flouriſhed and borne extremely well in this part of Kent, the young trees planted of late years, do not ſucceed well on any ſoil. The ſame is to be remarked of the black-heart cherry, which when it gets to the ſize of a man's thigh in the ſtem, gums and dies. Yet old trees of both ſorts continue to bear well.

[‡] Seldom ſo late, I believe; oftener in the firſt week of October; and it is cuſtomary to houſe the market-fruit; but often the cyder-fruit lies in large heaps in the orchard to mellow.

Notes by a Middle Kent Farmer.

From many years experience, he finds no particular advantage in watching the fermentation of cyder, in order to rack it at any exact time: a method conſidered of great conſequence in Herefordſhire, as mentioned by Mr. Marſhall, in his Rural Œconomy of that county.

Mr. Stone mixes all ſorts of apples together, and makes excellent cyder. Golden pippins alone make very fine cyder, if well managed; but great ſkill and care are required.

The ſorts of apples for domeſtic uſes are ſold to fruiterers, who ſend them to London by the hoys, and to the north of England by the coal veſſels.

Fruit-orchards are conſidered as the moſt valuable eſtates. Tithe is very rarely paid in kind; but in lieu of it, a compoſition of 2*s.* in the pound on the price of the fruit.

Cherries. § The ſite preferred for this fruit, is where there is a deep ſurface of loam upon the rock. If planted by themſelves, they are placed from twenty to thirty feet diſtant, and are put ſomewhat deeper in the earth than apples: in other reſpects, the management is the ſame. The ſorts are the black heart, white heart,

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§ There is no neceſſity for a depth of ſoil; eighteen inches is enough for any. Cherries require to be planted according to their ſorts for diſtances apart. A heart requires double the diſtance of a duke or morello, for inſtance: and the ſame holds good with reſpect to apple-orchards.

Our rocky ſoils are compoſed of two or three ſorts, viz. pinnock, haſſock, and loam, and generally the ſmall ſhatter ſtones from the rock mixed in it. Theſe are in ſtrata, according as the rocks lay; and the three ſorts, oftener than otherwiſe, lay in veins running cloſe together. It ſtrikes me, that on account of their being blended together in cultivation, we ſhould attribute much of the fruitfulneſs of our land to it. I ſuppoſe there is not one day in the year when the plough is at work on my farm, that it does not grate againſt the rocks which lay ſo near the ſurface. But it muſt be remembered, we plough very deep: from eight to twelve inches deep. *Note by a Middle Kent Farmer.*

Flemiſh, or early Kentiſh, Courone, Hertfordſhire black, wild black, and red cherries; alſo May-dukes and morellos.

They are uſually ſold to the higlers, who retail them on the ſea-coaſt of Kent, by the ſieve, or baſket, containing forty-eight pounds each; or they are ſent to London by water, and conſigned to fruit-factors.

Tithe is paid by compoſition of 2*s.* per pound on the ſale.

[||] Cherry-gardens, while they are in full bearing, which is ſeldom more than thirty years, are more profitable than orchards; but after that time, the orchards produce the moſt money.

Filberts. There are ſeveral hundred acres in the vicinity of Maidſtone. The ſoil beſt adapted for them is the ſtone-ſhattery ſandy loam, of a quality ſomewhat inferior. It is a diſadvantage for the trees to grow with great luxuriance, as they bear moſt nuts when but moderately ſtrong; if they are planted among hops, without apples or cherries, they are put about twelve feet apart; when the hops are dug up, the filbert-plantation is kept clean by repeated digging and hoeing; and great ſkill is neceſſary in pruning, to make them bear well [*]. A ſmall part of the produce of this plantation is ſold to the higlers, who

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[||] Cherry-gardens do not at any time pay equally to apple-orchards; and they are getting on that account thinner than formerly, as from the ſhortneſs of their duration in bearing, and at no time paying ſo well as apples, there are fewer plantations made now than there formerly were.
Note by a Middle Kent Farmer.

[*] It is entirely owing to the ſkill and management in pruning the trees upon even a favourite ſoil that they pay. They are trained in the ſhape of a punch-bowl, and never ſuffered to grow above four or five feet high, with ſhort ſtems, like a gooſeberry-buſh, and exceeding thin of wood. It is ſuppoſed, that within a few miles round Maidſtone, there are more filberts growing than in all England beſides. Theſe are alſo excellent in quality, and, if ſuffered to ſtand till ripe, will keep good for ſeveral years in a dry room or cloſet. But when gathered, they ſhould be laid thin on the floor of a room where the ſun can get in to dry them.
Note by a Middle Kent Farmer.

retail them in different parts of the county; but the principal part is conveyed by water to London, and there conſigned to factors, who ſell them by the hundred, of an hundred-and-four pounds, from 16*s.* to 40*s.* per hundred, in proportion to the crop and demand.

Tithe is compounded for by the year.

Hop Grounds.

The hop plantations in the vicinity of Canterbury and Maidſtone, being the principal ones of the county, a deſcription of them may ſuffice for the whole.

The plantations near Canterbury, called the City Grounds, are thoſe ſurrounding the city, to the diſtance of two or three miles, and contain between two and three thouſand acres.

The hops growing there, and in Eaſt Kent, are of a very fine rich quality, and if well managed, are of a good colour. They are highly eſteemed by the London brewers for their great ſtrength, doing more execution in the copper than thoſe of any other diſtrict.

The beſt of theſe plantations are thoſe which have a good deep rich loamy ſurface, with a deep ſubſoil of loamy brick earth. This kind of land forms the principal part of the plantations of Eaſt Kent: there are, however, ſome good grounds, where the ſurface is very flinty, and ſome of a gravelly nature; but theſe are very inferior.

The plantations of the town of Maidſtone and its vicinity, extend through the ſeveral pariſhes along the ſhelf of land which lies below the chalk-hills, on the borders of the Weald of Kent. This plantation, in ſome years, grows great crops of hops; but the quality of them is much inferior to thoſe of Canterbury and Eaſt Kent *.

When a piece of land is intended to be planted, the firſt thing is to plough the land as deep as poſſible, early in October, and to harrow it level; it is then meted each way, with a four rod chain, placing pieces of reed or ſtick at every tenth link, to mark the place of the hills; which makes 1000 per acre. This is the general method; but ſome few grounds are planted eight, and ſome twelve hundred per acre; ſome are planted wider one way than the other, in order to admit ploughing between the hills inſtead of digging; but this practice, although it has been tried many years, does not ſeem to increaſe, on account of the difficulty of digging along the rows where the plough cannot go; that part being much trodden with the horſes in ploughing, digs ſo much the worſe, that an extra expence is incurred, which in ſome meaſure, defeats the œconomy of the plan. When the hills are marked out, holes are dug about the ſize of a gallon, which are filled with fine mould, and the nurſery-plants placed in them.

Some put three plants, others two, and ſome only one good one to each hole. If the land is planted with cuttings inſtead of nurſery-plants, the holes are dug in the ſpring, as ſoon as cutting-time commences; ſome fine mould is provided to fill up the holes, in which are placed four or five cuttings, each about three or four inches in length: they are covered about an inch deep with fine mould, and preſſed down cloſe with the hand. When the land is planted with cuttings, no ſticks are required; but if nurſery-plants are uſed, they require ſticks or ſmall poles,

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* In the margin of the original printed Report, which was circulated for remarks and obſervations, was a long note by a Middle Kent farmer; for which, ſee the Appendix.

poles, ſix or ſeven feet high the firſt year: in both caſes, the land is kept clean during the ſummer, by horſe and hand-hoeing: the next winter dug with a ſpade, and early in the ſpring the old binds are cut off ſmooth, about an inch below the ſurface; a little fine mould is then drawn over the crown of the hills. As ſoon as the young ſhoots appear, ſo that the hills may be ſeen, they are ſtuck with ſmall poles, from ſeven to ten feet long, in proportion to the length it is expected the bind will run; theſe poles are called ſeconds, and are generally bought in the woods, at from 5*s.* to 8*s.* per hundred, and three of them are placed to each hill. As ſoon as the bind gets about two feet in length, women are employed to tye them to the poles. The land is kept clean during the ſummer, by horſe and hand-hoeing, as before mentioned. The proper time for gathering them is known by the hop rubbing freely to pieces, and the ſeed beginning to turn brown. They are picked in baſkets, containing five buſhels each, and are carried to the oaſt in bags, at noon and evening, for drying. Great care and ſkill are neceſſary in this branch of the buſineſs; the ſmalleſt neglect or ignorance in the management of the fires, will ſpoil the hops, and occaſion great loſs to the planter. When dried and ſufficiently cool to get a little tough, ſo as not to crumble to powder, they are put into bags or pockets; the former containing two hundred weight and a half, and the latter, an hundred and a quarter: they are then trodden very cloſe, and weighed by the exciſeman.

The ſecond year after planting, full ſized poles from fifteen to twenty feet in length, according to the ſtrength of the land, which coſt from 16*s.* to 36*s.* per hundred, are placed to the hills inſtead of the ſeconds, which are removed to younger grounds. Here great care is neceſſary not to overpole; for by that means young grounds are often much weakened; and it is equally ſo, not to overdung them, as that will make them mouldy.

Fifty cart-loads of well rotted farm-yard dung and mould, once in three years, are generally eſteemed ſufficient for an acre of land.

Implements and Appendages to the Hop Grounds.

Every hop-plantation of four or five acres, requires an oaſt about ſixteen feet ſquare, which, built ſubſtantially with the requiſite ſtowage room, coſts from 150*l.* to 200*l.*

This is furniſhed with a ſet of picking baſkets, about twelve in number, which coſt about 5*s.* 6*d.* each. Alſo a good ſcale-beam, with weights and ſcales, which together coſts about 5*l.*

A ſhim made with a frame, like a wheel-barrow, is eſteemed the beſt ſort; it coſts about 2*l.* 2*s.* This implement is a very uſeful and convenient one likewiſe for tearing up weeds on ſummer-fallows.

A harrow to be drawn by one horſe, with a ſmall wheel in front, to go round at the ends of the plantation, and a pair of handles to be holden by the man who follows it, in order to keep it from bruiſing the binds. This implement coſts 1*l.* 15*s.*

A large iron peeler, to make holes in the land for the poles, coſts 6*s.* or 7*s.* A hop-dog, to wrench up the poles, coſts 5*s.*

PRODUCTIONS.

There can be no certain report made of the produce of the hop-plantations, becauſe, in ſome years, the growth of theſe diſtricts is leſs than two hundred weight per acre, and in others it is fourteen or fifteen: the average may be ſeven or eight.

CHAPTER X.

WOODS AND PLANTATIONS.

THE woodlands of the eaſtern part of Kent are diſperſed principally between the great road from Rocheſter to Dover, and the chalk-hill that runs from Folkſtone by Charing to Detling. Theſe woods furniſh the country with fire-wood, tillers for huſbandry uſes, and the dock-yards with timber for ſhip-building; but the moſt material part of their produce is the immenſe quantity of hop-poles cut out for the neighbouring plantations.

The Management of Woodlands in the Diſtrict extending from Chatham-Hill to Charing.

Copy of a Paper, preſented to the Kent Agricultural Society by R. Tilden Eſq.

"The ſoil on which theſe woods grow, is, for the moſt part, flint and clay, with chalk at no great diſtance from the ſurface. Where chalk is the chief component part of the upper ſurface, the wood is of ſlow growth and little value. They are generally cut down from ten to fourteen and to eighteen years growth; and the price varies from 5*l.* to 15*l.* per acre, depending in a great meaſure on the goodneſs of the wood, the demand, and the price of poles. Hop-poles are the chief article which make woods valuable in this part of the country; there is not only a conſtant demand for them at home, but they are carried as far as Maidſtone, and to a conſiderable diſtance beyond, the plantation there being ſo very extenſive as to require more than the woodlands in that ſituation produce, and the planters preferring the poles which grow upon the hills to thoſe of quicker growth and nearer home.

"Part of the woodland in this diſtrict is in the hands of the proprietors, and part is let to the tenants who occupy the adjoining farms. When fit to fell, it is commonly ſold by valuation. After the purchaſe is made, and the leaf is off, the wood is parcelled out among the different workmen employed by the purchaſer. The firſt ſtep is to clear the ſtocks of the ſmall ſpray, buſhes, &c. Theſe are made up into bavins, bound with two wifts †, and are called winter kiln bavins. They ſhould be ſix feet long, and two in circumference over the bands: the price of making them is 3*s.* per hundred; and they ſell in the woods for 6*s.* per hundred. If buſhes are wanted, the beſt are bound up in bundles with one wift, at 1*s.* 6*d.* per load, conſiſting of fifty bundles; and they ſell in the woods from 7*s.* to 10*s.* per load.

"After the ſtocks are cleared, they are cut down and thrown into ranges, wide enough to admit a team to paſs to fetch away the different articles. Theſe are cut out as the ſtocks are felled, and conſiſt of firſt and ſecond beſt poles, firſt and ſecond ordinary poles, uſe-poles, ſtakes, and binders, thatching-rods, auſtry-rods, hurdle-rods, wheel-timber, piles, and props. The remainder, not fit or wanted for theſe purpoſes, is thrown into the range, where it remains to employ the woodmen in the ſpring.

"The beſt firſt poles are cheſnut, aſh, willow, and maple: their length ſhould be eighteen feet; their price varies from 30*s.* to 35*s.* per hundred; cheſnut-poles are deareſt, varying in price from 15*l.* to 20*l.* per 1000 in the wood.

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† Local term for bands.

"The beſt ſecond poles conſiſt of the ſame wood as the firſt, and are only a ſmaller pole; varying in length from fifteen to ſixteen feet. They ſell in the wood from 20*s.* to 21*s.* per hundred.

"The firſt ordinary poles conſiſt of oak, gaſcoign, red birch, beech, and hornbeam; the two laſt very inferior: their length ſhould be from ſeventeen to eighteen feet; they ſell in the wood from 12*s.* to 20*s.* per hundred.

"The ſecond ordinary poles, varying in length from fifteen to ſixteen feet, ſell in the wood from 10*s.* to 12*s.* per hundred.

"Uſe-poles conſiſt of aſh, cheſnut, willow, oak, aſp, and gaſcoign, which are too large for hop-poles. They are cut at one halfpenny each, and ſell in the wood from 4½*d.* to 6*d.* according to the ſize, length, and goodneſs of the wood. The largeſt ſort are ſold by admeaſurement, from 8*d.* to 9*d.* and 10*d.* per foot.

"Stakes and binders are cut out of hazel, aſh, oak, willow, and maple; they are bound up in bundles, twenty-five in each; the price of cutting is 1½*d.* each; and they ſell in the wood from 4½*d.* to 6*d.* per bundle. The length of a ſtake ſhould be five feet; of a binder, from fifteen to eighteen feet.

"Thatching-rods are cut out of the ſame kinds of wood as the ſtakes and binders which are not of a proper length for binders, or large enough for ſtakes. They are bound up in bundles, fifty in each; the price of cutting is 2*d.* per bundle; and they ſell in the wood for 6*d.* The length of a bundle ſhould be ſix feet.

"Auſtry-rods are ſmaller than thatching-rods, cut out of hazel. They are uſed to bind billet-wood for the London market. They are bound up in bundles, one hundred rods in each; the price of cutting is 2*d.* and they ſell at 6*d.* per bundle in the wood: their length is five feet.

"Hurdle-rods are cut to make hurdle-gates for folding ſheep; they are cut out of the ſame kind of wood as binders: indeed they are only a ſmall binder, from ten to fourteen feet long. They are bound up in bundles, fifty in each: the price of cutting is 2*d.* and they ſell in the wood at 6*d.* per bundle.

"Wheel-timber is cut out of large beech of two or three falls growth: it is uſed for fellies of wheels; it ſhould not be leſs than ſeven inches diameter at the ſmall end. It is cut down for one penny for every length of three feet, and ſold in the wood from 7*d.* to 8*d.* per length; if ſold by admeaſurement, at the ſame price per foot; if ſmaller, it is cut out for axle-trees, plough-cheps, and wreſts. Axle-trees ſhould be ſeven feet long, and ſix and a half inches in diameter at the ſmall end; they are cut for 1*d.* each, and ſell in the wood for 10*d.* Plough-cheps ſhould be five feet long, and five inches diameter at the ſmall end: they are cut for one halfpenny each, and ſell in the wood for ſixpence.

"Plough-wreſts ſhould be four feet long and five inches diameter at the ſmall end: they are cut for one halfpenny each, and ſell in the wood for 2*d.*

"Piles are cut out of beech and hornbeam; they are uſed to prevent the tide from waſhing away the chalk at the footing of the ſea-walls, and are cut of different lengths.

	s.	*d.*	
12 feet long	1	1½	each.
11 ———	1	0½	
10 ———	0	11½	
9 ———	0	10	
8 ———	0	8½	
7 ———	0	7	

	l.	*s.*	*d.*	
6 feet long	1	15	0	per hundred.
5 ———	1	5	0	
4 ———	0	19	0	
3 ———	0	12	0	

"N. B. The above is the price of the piles delivered at the place where they are to be uſed. Land-carriage is 5*s.*

per hundred for ſix feet piles, 4*s*. for five feet, 3*s*. for four feet, and 2*s*. for three feet piles. If they go by water-carriage, the price is the ſame.

"Props which are uſed in the coal-mines at Newcaſtle, are cut out of oak and birch; they ſhould be cut ſix feet four or five inches long, and be two and a half inches diameter at the ſmall end: the price of cutting is a halfpenny; and they ſell in the woods at 2*d*. each.

"Theſe are the chief, if not all the articles which are cut during the winter. In the ſpring, what remains in the ranges is made up, part into ſummer kiln-bavins, which are made of the ſmalleſt wood, and bound with two withes, and ſhould be ſix feet long. The price of making is 3*s*. per hundred; and they ſell in the wood from 8*s*. to 9*s*. per hundred. Part is made into houſehold bavins, being the beſt faggots which are made; they ſhould be ſix feet long, and two feet over the band; the price is alſo 3*s*. per hundred; and they ſell in the woods from 12*s*. to 14*s*. per hundred. The remainder is cut out in cord-wood; each ſtick ſhould be three and a half feet long, the length of the cord fourteen feet, and it ſhould be ſtacked three feet high; the price of cutting and ſtacking is 2*s*. per cord; and the cord ſells in the wood from 12*s*. to 16*s*.

"It has been found by thoſe that have been very attentive to the management of their woodlands, that wood, like every thing elſe, decays and produces fewer poles every fall, unleſs they are repleniſhed. This is beſt done in the autumn after the wood is felled. The plants, whether cheſnut, aſh, or willow, ſhould be taken up from the nurſery with as much earth to their roots as can be conveniently done*, and their ſmall roots ſhould be cut as little as poſſible. Strong plants taken up in this manner, and planted with care, ſeldom fail. They ſhould be looked over the next ſpring, to faſten thoſe which the froſt may have looſened.

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* Removing earth with the roots of plants of the kinds here mentioned, is impracticable and unneceſſary; no deciduous plants. but Ame-

" The tithe of woodlands was, a few years ago, at 2*s.* in the pound; but now varies from 2*s.* 3*d.* to 2*s.* 6*d.* and to 3*s.* † Many clergymen are of opinion that the woods ought not to be cut down, but to be made up in the different articles for ſale; but this is not true: if the clergyman and purchaſer ſhould diſagree, all that the latter has to do, is to ſever every tenth perch and leave it: the expence of doing this is found to be about 3*d.* in the pound. If wood therefore is ſold at a fair valuation, it appears unreaſonable for any clergyman to demand more than 2*s.* 3*d.* in the pound. ‡"

American flowering-ſhrubs, require earth with them, or will they retain it. *Note by Mr. Randall of Maidſtone.*

† I never heard of 3*s.* being paid for the tithe of wood; 2*s.* 6*d.* is a common price, and ought not to be called unreaſonable; for if the purchaſer gives 20*s.* for the wood and 2*s.* for the tythe, amounting in the whole to 1*l.* 2*s.*, the tythe of which will be found to be nearly 2*s.* 2½*d.*: and the expence of felling, and in moſt caſes 2*s.* 6*d.* is a reaſonable charge. *Remark by the Rev. Mr. Pryce.*

This mode of eſtimating tythe is erroneous, becauſe it ſuppoſes eleven-tenths of the whole; and by that means makes the tythe too ſmall. The fact is, that the ſeller can engage only for nine-tenths; and, conſequently, the parſon's ſhare is a ninth part of the ſum the wood ſells for, with an addition of a tenth of the price of ſevering; which in moſt caſes will be found to amount to about 2*s.* 3*d.* in the pound, as Mr. Tilden very juſtly obſerves. *Editor.*

‡ The practice of laying down the different ſorts from the ſtock to ſtrike into the ground, is a valuable diſcovery; and I believe rather a local one. They produce hop-poles more quick by this, than in any other way. *Note by a Middle Kent Farmer.*

The method is, to ſelect long healthy young branches from the ſtocks adjoining to vacancies in the wood, and then to dig holes, each about two feet ſquare, and fifteen inches deep, returning the ſurface mould into the bottom of the hole, and then bending each branch and faſtening it down with a peg about ten or twelve inches below the ſurface, treading over it the remainder of the mould. *Editor.*

General

Names of Woods.	*To whom they belong.*	*Pariſhes they are in.*	*Acres ſuppoſed to contain.*	*Surface Soil, generally.*	*Subſo*
Stalisfield.	Hon. Mr. Watſon.	Stalisfield.	400	Heavy and gravelly Loam.	Heavy Loam Chalk.
Newenden Bottom.	Sir Edward Knatchbull, Baronet.	Newenden.	350	Sandy Loam.	Heavy Loam.
Bickner Wood.	—— Chambers, Eſq.	Bickner and Hucking.	140	Flinty ſtrong Loam	Heavy Loam.
Cheſnut Wood	Earl of Aylesford.	Newington and Milton.	300	Gravelly and ſandy Loam.	Gravelly Loa
Long Tunn.	—— Beſt, Eſq.	Thurnham and Stockbury.	350	Gravelly and ſandy flinty Loam.	Heavy and flinty Loam
Squirrels Wood.	Meſſ. Head and Roper.	Stockbury.	200	Flinty and dry poor gravelly Loam.	Chalk at 2 gravelly Lo
Binborough Wood.	Earl of Aylesford.	Thurnham.	180	Flinty and gravelly Loam.	Chalk 4 feet, gravelly L
Mount Down.	—— Beſt, Eſq.	Detling and Thurnham.	200	Flinty and gravelly Loam.	Some chalky, ſo good as
Cockſtreet Wood.	—— Foote, Eſq.	Detling.	180	Same as above.	Few Flints, above.
Chatham Wood.	—— Beſt, Eſq. of Chilſon.	Chatham and ——	500	Flinty gravelly Loam.	Stronger Lo Flints.
Fright Wood.		Aylesford and Boxley.	300	Chalky flinty gravelly Loam.	Chalk and gravelly L
Upper Bell Wood.	Meſſrs. Read, Seager, and others.	Aylesford and Boxley.	200	Gravelly Loam.	Heavy, flinty Loam.
Bridge Wood.	Wardens of the Bridge.	St. Margaret's.	1000	Gravelly and chalky Loam.	Gravelly Lo Chalk.
Chatham Woods.	—— Foote, Eſq.	Chatham.	300	Gravelly Loam.	The ſame as
Shawſted Wood.	Dean and Chapter of Rocheſter.	Shawſted and Gillingham.	500	Gravelly Loam.	Ditto.
Rainham Park.	Earl of Aylesford.	Rainham and Newington.	400	Ditto.	Gravelly Lo Heavy Loa
Pennenden Heath Woods.	—— Beſt, Eſq. of Boxley.	Boxley.	50	Sandy Gravel.	Gravelly and Loam.
King's Wood.	Mrs. Bouverie, Sir John Filmer, and others.	Langley, Leeds, Sutton, &c.	1500	Stone ſhatter, and gravelly Loam.	Strong Loam Ragſtone
Moat Woods.	Lord Romney.	Maidſtone.	160	Stone ſhatter, and gravelly Loam.	Gravelly Loa ſome Stone
Coxheath Woods.	Mr. John Miller.	Yalden and Hunton.	80	Gravelly Loam.	Gravelly Lo ſome Stones
Barming Woods.	Lord Romney, and Meſſ. Amherſts.	Barming and Aylesford.	300	Sandy Loam.	Gravelly Loa
Eaſt Malling Woods.	C. Milner, Eſq. and the Hon. Mr. Puſey.	Teſton and Eaſt Malling	600	Sandy Loam and Stone ſhatter.	Gravelly Lo Ragſtone.
Peckham Wood.	Mrs. Bouverie, Sir Wm. Twiſden, and Lord Le Deſpencer.	Peckham and Mereworth.	500	Gravelly Loam and Stone ſhatter.	Deep Loam Clay, and
Ofham Wood.	Lord Le Deſpencer, and Wm. Geary, Eſq.	Peckham and Ofham.	600	The ſame.	Gravelly Loa
King's Wood, by Suſſex.	—— Cartier, Eſq. and others.	Goudhurſt, Cranbrook, Ticehurſt, &c.	3000	Gravelly Loam and ſandy ditto.	Some ſtrong C Loam.
Burham Downs.	Waſte.	Burham and Aylesford.	1000	Gravelly Loam Flinty.	Gravel, Clay Flint.

It is attended with ſome difficulty and hazard of ſucceſs to cauſe young new planted trees to thrive well in old woods and waſtes, the land cloſe round the new plants being occupied by the roots of the neighbouring trees; graſs and weeds likewiſe growing near them, added to their being much excluded from the free air by the neighbouring wood growing round and above them, the new plants often fail the firſt or ſecond ſummer; and ſeveral of thoſe that continue alive till the ſucceeding fall of the wood, and then cut down with it, are, from their weakly ſtate, frequently overpowered by the more rapid growth of the young ſprings of the eſtabliſhed trees, ſo that they are ſeen no more. On the average of all that have been planted in thoſe ſituations, barely a third is to be found ſucceeding to advantage, and ſometimes not a tenth. Several

extenſive experi
have been preſe
clean, cloſe rou
where planting
ſkilful and expe

RVEY OF KENT.

Subſoil.	*Produce ſeemingly Natural.*	*Extra from Improvements.*	*Articles for Sale.*
Heavy Loam and ſome Chalk.	Birch, Hornbeam, Oak, Aſh, Hazel, Beech, &c.	Some Aſh, Cheſnuts, and Willow planted, ſucceed.	Some Timber, Hop Poles, Cord Wood, Hurdles and Bavins for Bakers, and Lime.
Heavy Loam.	As above.	But little done in Planting.	Produce as above.
Heavy Loam.	As above.	Some good young Plantation of Aſh, Willow, and Cheſnut.	Some Timber and Fencing Poles in addition to the above.
Gravelly Loam.	Some Aſh, Beech, Oak, Hazel, &c.	Exceeding good Cheſnut Plantation.	Quantities of Hop Poles, Fencing Poles, and all the above.
Heavy and gravelly flinty Loam.	Some good Aſh, Beech, Hornbeam, &c. with tolerable Oak.	No Improvements made.	Some Fencing and Hop Poles, Cord Wood for Charcoal Bavins, &c.
Chalk at 2 feet, ſome gravelly Loam.	Some Beech, ordinary Oak, &c.	No Improvements.	Cord Wood, Bavins, and a few Poles.
Chalk 4 feet, ſome deep gravelly Loam.	Some good Aſh Poles, a few Oaks, Hazels, &c.	No Improvements.	Cord Wood, Hop Poles, Bavins, Stakes, Ethers, &c.
Some chalky, not quite ſo good as above.	Nearly as above.	No Improvements.	As above.
Few Flints, nearly as above.	Some Oak, Hazel, Beech, and a few Aſh.	Old Woods and Plantations of Cheſnut and Aſh. They have repeatedly been filled up, many years ago, with Cheſnut, Aſh, and Willow; and now again filling up, under Mr. Randall's direction.	Abundance of Hop Poles, Fencing Poles, Stakes, Cord Wood, &c. &c.
Stronger Loam with Flints.	Some Oak, Aſh Poles, Beech, &c.	No Improvements going on.	Poles, Bavins, Cord Wood, &c.
Chalk and ſome gravelly Loam.	Some Oak, Aſh, Beech, &c.	No Improvements,	As laſt.
Heavy, flinty, and poor Loam.	Very ordinary Oak, ſome Aſh, Hazel, and Beech.	A moſt capital Improvement for Poles, by Mr. Seager, with Aſh; one Acre of which Underwood is now of equal value to eight round of the ſame age.	Produce a few Poles, Cord Wood, Bavins, &c. the Plantation a great many Poles, and the above.
Gravelly Loam and Chalk.	Some Oak, Aſh Poles, &c.	Beginning to improve by Aſh and Cheſnut Plants.	Poles, Cord Wood, &c.
The ſame as above.	Oak, Aſh, &c.	Old Improvements ſtill continued.	The ſame as above.
Ditto.	Aſh, Oak, and Beech.	No Improvement.	The ſame.
Gravelly Loam and Heavy Loam.	As above.	No Improvement.	The ſame.
Gravelly and Sandy Loam.	Good Hop Poles from the few old Stocks.	Capital Improvement of Cheſnuts on poor Sand.	Abundance of Poles, Stakes, Ethers, &c. &c.
Strong Loam with ſome Ragſtone	Large Quantities of Oak, ſome Hazel, Birch, &c.	No Improvements.	Many Oaken Tillers, ſmall Timber, Poles, &c.
Gravelly Loam and ſome Stone.	Oak, Birch, Aſpen, Hazel, and ſome Aſh.	Improved by planting many Aſh, Cheſnut, and Willow, ſaid to be the moſt Ancient of all the neighbouring Improvements.	Some very good Fencing Poles, Hop Poles, Cord Wood, &c. &c.
Gravelly Loam and ſome Stones.	Oak of indifferent growth.	Some Cheſnuts in a flouriſhing State.	Hop Poles, Fence Poles, &c. &c.
Gravelly Loam.	A variety of Birch, Oak, Hornbeam, &c.	Much improved by planting Cheſnut, &c.	Quantities of good Fence Poles, Hop Poles, &c.
Gravelly Loam and Ragſtone.	Oak, Beech, Birch, Hazel, Aſh.	Improved as above.	Product as above.
Deep Loam, heavy Clay, and Gravel.	As above.	As above, with ſome new Plants of Cheſnut, by Lord Le Deſpencer, on very Gravelly Loam.	The ſame.
Gravelly Loam.	As above.		Ditto.
Some ſtrong Clay and Loam.	As above, but more inclined to Oak.	But very little improved.	Fewer Poles, Fire Wood, &c. as above.
Gravel, Clay, ſome Flint.	Scrubby Oak, Hazel, &c.	Waſte Lands.	Free from November to March.

xtenſive experiments are now purſuing; and, as far as they are carried, promiſe more ſucceſs than hitherto; as nearly all the new plants
ave been preſerved alive through thoſe late dry ſeaſons, in the coarſeſt graſſy lands. Digging large holes for the plants, and keeping them
ean, cloſe round them, with ſome new invented hoes for the purpoſe, form a conſiderable part of the Plan; and although thoſe woodlands,
here planting has been followed, are more than double the value of thoſe adjoining which have been neglected; yet, it is confeſſed by the moſt
ilful and experienced, that this practice is ſtill but little underſtood. *A Note by Mr. Randall.*

[*To follow Page* 126.]

General Obſervations on the preceding Table.

The oaks are all cut in the flaying ſeaſon, for the bark of all ſizes. The fencing-poles are either uſed whole, or cut into gates for ſheep. The hop-poles are ſorted into three, four, or five ſorts, and ſold by the hundred. The faggots, or bavins, are made into lengths of five feet; the beſt for bakers and houſe-keepers; and on the hills they make inferior ſorts, called kilnbruſh, which are uſed for burning lime. Stakes and ethers are cut out before the faggots are made. In the neighbourhood of Chatham they cut ſome ſmall bundles of bruſh and cord-wood, for the uſe of ſhipping and the metropolis. The woodlands of the Weald are tithe free.

CHAPTER XI.

WASTES.

THE waſte lands, the neglected woods, and the impoveriſhed commons, are ſtriking evidences of the neceſſity and importance of enquiries like the preſent; and the legiſlature will have abundant merit in ſuggeſting to the proprietors of theſe eſtates a plan of improvement,

ment, from which individuals and the community will derive the greateſt advantages.

In the county there are the following commons, viz.

Blean Common,
Swingfield Minis,
Stelling Minis,
Rodes Minis,
Ewel Minis,
Stouting Common,
Challock Lees,
Baddleſmere Lees,
Chart Leacon,
Hotfield Heath,
Hays Common,
Bromley Common,
Boxley Heath,
Charing Heath,
Lenham Heath,
Pinnenden Heath,
Cox Heath,
Langley Heath,
Barming Heath,
Eaſt Malling Heath,
Seal Chart,
Ightham Heath,
Wrotham Heath,
Dartford Heath,
Dartford Brimps,
Black Heath, &c. &c.

The whole extent of theſe commons, I apprehend, does not comprehend more than 20,000 acres. The ſoil of a few of them conſiſts of a poor cold loam; of others, of a wet ſtiff clay; but the principal part abounds in gravel and ſand. They are in general covered with furze and fern, interſperſed with patches of graſs; and feed ſome lean cattle and poor half ſtarved ſheep. If they were in a ſtate of ſeveralty, under proper ſyſtems of management, they might undoubtedly be made of great value. Incloſures would do much; induſtry and due attention to the natural produce, and what has been cultivated on ſimilar ſoils in other places, would do more. Nature is a wiſe counſellor, and thoſe who follow her advice can, with the aid of art and obſervation, do wonders in agriculture.

I ſhall here take the liberty of ſuggeſting to the Honourable Board of Agriculture, the propriety of recommending to the legiſlature a plan for a general act of incloſure, founded on the principle of Mr. Gilbert's act for incorporating pariſhes for the ſupport of the poor, ſo far as that act relates to the calling a meeting, and determining by a majority of two-thirds in number and value of the occupiers, whether their common ſhall be divided; and, if determined in the affirmative, then to proceed by appointing commiſſioners, and expediting the buſineſs, as in caſes where ſeparate acts of parliament have been obtained.

CHAPTER XII.

IMPROVEMENTS.

SECT. I.—*Draining.*

THIS is a ſubject of infinite importance to the proſperity of this kingdom. Bogs exiſt in moſt of the counties, more or leſs, and in ſome to a wonderful extent; the whole of which is convertible to the very beſt land, by proper management.

In Kent we have a great many ſmall patches of boggy and ſpungy lands, formed by means which will hereafter be mentioned. We have alſo ſeveral extenſive parcels of marſh-lands, which in the winter months are frequently rendered totally uſeleſs, and of much leſs value in ſummer. The quantity of theſe two kinds of wet lands amounts to ſome thouſand acres, the whole of which, at a very ſmall expence, might be improved, in its annual value, at leaſt 1*l.* per acre.

Beſides theſe, there is much land of conſiderable value that might be greatly improved, by a proper attention to the general principles of drainage.

The different kinds of drainage may be arranged under the following heads, viz.

1. Upland Drainage,
2. Flood Drainage, and
3. Bog Drainage.

Upland Drainage is effected in two ways; either by ſurface drains, or by hollow drains. The firſt is done by laying the land in ridges, and leading the water, by means of furrows, into narrow channels made with the ſpade, and thence by a general conductor to the ſtreams. This kind of drainage is practiſed only on ſoils having a clay ſurface, or any other ſubſtance impenetrable by water; and the method uſed in Kent is to lay the land in flat ridges, either a half or a whole rod in width; if the land is very wet, narrow ridges are made; and if but moderately ſo, wider ones. When the land is ploughed, the furrows between the ridges are opened with a plough, having a mould-board on each ſide, by which a drain for the water is made; and at the lower parts of the field a channel is dug out about the breadth of the ſpade, to receive the water from the furrows, and convey it away as before mentioned. This mode of draining arable clay-ſoils on hills receiving no water but what falls from the clouds, is found to be effectual; and the flat ridges made with the turn-wreſt plough are very far ſuperior to the high round ridges of other counties made by the ploughs with fixed mould-boards; for the flat ridges have the very great advantage of receiving and retaining the ſmall ſhowers equally over the ſurface of the ridge in ſummer, when every drop of water is of the utmoſt conſequence to vegetation; while the high round ridges caſt off little ſudden ſhowers, and the crops growing thereon in dry ſeaſons, are in a ſtarving ſtate for the want of a ſufficient degree of moiſture. Great objections are made by ſome to flat ridges, alledging that the ſurface is more likely to be incruſted and baked together, by the water ſtanding thereon after heavy ſhowers; but even if it ſhould be ſo, the evil is eaſily remedied by taking the firſt opportunity of a dry ſeaſon in the ſpring to harrow the ſurface of a wheat-crop; or, to prevent the miſchief, by drilling all crops and hoeing the intervals by hand if labourers are to be had; and, if not, by ſcuffling the ſurface with horſe-hoes. At any rate, the evil of an incruſted or bound ſurface, which may be ſo eaſily remedied, is not to be put in competition with the advantages reſulting from having a level ſurface to retain the ſmall ſhowers that fall in a dry ſummer.

The ſecond mode of draining upland is by hollow drainage; which is practiſed on all land having a porous ſoil on the ſurface, and a retentive clay-ſoil a little below it, which keeps the ſurface wet till the water is taken away by ſome artificial means. The method is to cut angular channels at ſuch places, and at ſuch diſtances from each other, as the nature of the ſoil ſeems to require; which muſt be determined by experienced men from local circumſtances; ſuch as, whether the retentive bed of clay be a greater or leſs depth from the ſurface; and whether the field to be drained has a greater or leſs fall for the ready paſſage of the water. The method of preſerving the channels open and free, is various. Some lay flints or ſtones at the bottom, others green buſhwood; and ſome make the trench with ſhoulders towards

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the bottom, and lay thereon a tuft of graſs, with the graſs-ſide downwards, thereby leaving an entire cavity for the paſſage of the water. In either caſe, the trench is filled up and levelled with the mould that was dug out of it. Theſe under-ground drains, when they are well executed and made of a ſufficient depth, out of the reach of moles and preſſure of cattle or carriages, will laſt from ten to twenty years, and upwards; and land may be drained in this mode at an expence of from 15*s.* to 30*s.* per acre, in proportion to the number of channels required. But it ſhould be obſerved here, that many attempts at hollow draining have been made on boggy and ſpungy ſoils without ſucceſs, owing to a want of the knowledge of the original cauſe of the miſchief; which will be explained when the drainage of that ſort of land is mentioned.

II. Flood Drainage. This kind of drainage is very little attended to in ſome parts of this county; for want of it, many extenſive tracts of marſh-land are very much injured; and a benefit, which otherwiſe would accrue by a great increaſe of property in mutton, wool, and beef, is thereby loſt to individuals and the public.

The miſchief of floods is obvious; and, fortunately, ſo is the remedy, when their cauſes are known. Theſe are, firſt, rain falling on retentive lands, whoſe ſurface is below the level of the river where embankments are wanting, or are defective. The nuiſance in ſuch caſes can only be removed by evaporation or machinery *; but it may

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* A machine of this kind has been lately erected by Mr. Hooper, of Cottington, near Deal, which promiſes to be of the greateſt utility, as its coſt is very little, and conſtruction ſimple; it is not likely to get out of repair; and requires little or no attendance, it having a vane which keeps it always facing the wind.

Dimenſions

may be greatly leſſened by embankments. Under theſe circumſtances, ſuitable embankments along the river anſwer a general good purpoſe; they keep the downfal-water in its proper channel, and the accumulated ſtream enlarges the bed and improves its outlet.

Secondly, A deſcent of water from the adjoining hills; the whole of which may be conveyed to the river by embanked channels, in ſuch directions as nature points out.

III. Bog Drainage. All boggy ſoils conſiſt of a maſs of vegetable matter, ariſing from the ſurface of the land having been overflowed for ages with water, thereby producing a number of aquatic plants, whoſe roots form a thick matted turf that contain water, in the nature of a ſpunge. As theſe aquatic plants continue their growth upwards, their roots become matted together under the ſurface, and thereby form the ſpungy ſurface of the bog; hence, all bogs are in a perpetual ſtate of increaſing depth, ſo long as they are fed with the neceſſary ſupply of water to keep up the vegetation of the aquatic plants.

Dimenſions of the Mill and Pump.

Four ſweeps, the drivers of each ſeven feet long, and breadth ſixteen inches. The leaders of each are the ſame length, and nine inches in breadth; theſe are ſo fixed, with ſprings behind them, as to check the velocity in ſtrong gales of wind.

The mill works a ſquare pump fifteen and a half inches by ſeven in the clear. It is calculated, in moderate gales, to make a ſtroke in one ſecond of time, by which it delivers two gallons of water, making a diſcharge in twenty-four hours of 1600 butts, of 108 gallons each. It is planned with a lever, in caſe of neceſſity, to work another pump of the ſame ſize; which in ſtrong winds would of courſe diſcharge double the above quantity. The price, including fixing, is 31*l.* 10*s.*

The uſe of this mill is to throw out the water from about 100 acres of graſs-land, that have heretofore been always under water in a rainy ſeaſon; occaſioned not by the downfal of rain, nor by ſprings riſing out of the land, but by ſprings iſſuing from the foot of the adjoining hills, and floods from the higher grounds ſpreading over the level below, faſter than the ſewers could take them away. The ſewer which did run acroſs this land is now turned round the outſide of it, and the land to be drained by this mill is embanked againſt the floods, ſo that there will be no water to raiſe from it, but what falls from the clouds.

Let the ſupply of water be cut off, and the aquatic plants ſoon die; by which the bog is no longer a maſs of vegetable matter, but becomes a body of firm rich mould, in the nature of a rotten dunghill. This ſort of land, therefore, when once it is properly drained, becomes the richeſt and moſt valuable: hence it is obvious, that all boggy lands may be increaſed in their annual value, at leaſt 20*s.* per acre, and probably to twice that amount.

The ſprings that occaſion the bogs, iſſue from the foot of the adjacent hills; and the method of draining, or more properly deſtroying, the bogs, as diſcovered by the ingenious Mr. Elkington, is ſo ſimple, eaſy, and certain in its effects, that it needs only to be made public, to be generally adopted, and it will then produce the moſt beneficial effects to the community. For, beſides the great increaſe of national wealth, by the deſtruction of all the bogs in the kingdom, amounting in value to many hundred thouſand pounds a year, the improvement of the health of the neighbouring inhabitants is of the utmoſt importance; not to mention the increaſe of population, by the improvement and culture of theſe now barren and almoſt waſte diſtricts.

It may be preſumptuous in me to enter at large into this ſubject, after the excellent report which has been made on Mr. Elkington's mode of draining, by the worthy preſident of the Board of Agriculture; but as this Survey when publiſhed by the Honourable Board, may fall into the hands of many who may not have an opportunity of ſeeing the other, I ſhall juſt mention ſuch ideas as have occurred to me on this ſubject, together with the outlines of Mr. Elkington's plan.

Water falling from the clouds, in rain or in dews, on the ſurface of the earth, deſcends in perpendicular directions through all porous ſoils, ſuch as chalk, ſtone, gravel, ſand, &c. until it meets with a bed of cloſe tenacious earth; of which clay is the principal and moſt retentive: the water being there ſtopped in its deſcent, burſts out over the edges of the bed of clay, in the nature of a ſpring; from thence it flows down the ſides of the hill, and produces a bog. The hills containing ſand, rock, and gravel, in this county, and I ſuppoſe in moſt others, have beds of clay at their baſe, lying conſiderably above the level of the bottom of the vales which interſect the hills. The method practiſed ſo ſucceſsfully by Mr. Elkington, is to cut off theſe ſprings from their ſource by deep channels, in lines nearly in the direction of the vallies, thence conveying the water down to the rivers or ſewers below.

When the direction for a drain is marked out, it is neceſſary to begin at the bottom next the river, carrying the trench gradually up to the ſpring-head, under the guidance of a ſpirit level: a fall of an inch in four or five rods, is ſufficient to carry off the water. As the workmen proceed in making the trenches for the drains, holes are made in them with a boring auger, in order to tap the ſprings, and let out as much water as poſſible. If, from the ſituation of the land and ſoil, it is neceſſary to make very deep channels, then drains of ſtone or brick are laid, and the drain is covered in with the earth that is dug out; but otherwiſe, open trenches will anſwer every purpoſe.

The mouth of the drain ſhould be laid on a little green bruſh-wood, to prevent its ſinking into the earth. If any trees are found near the direction of the drain, they ſhould be dug up, as otherwiſe their roots are liable to get into the drain; where they grow with ſuch rapidity as to burſt or choke it in a few years. If a ſmall quantity of water only is expected to come down the drain, a breadth of four or five inches is ſufficient; but if a quantity is found iſſuing from ſeveral ſprings, or comes from a conſiderable diſtance, by which an accumulation of water follows, then the drain ſhould be about ſix or ſeven inches wide. If made with bricks, and the ſoil on which they are laid is a ſoft quickſand, they ſhould be laid flat; but if clay or firm earth, laying them on their edges will do; the depth of the drain ſhould be greater at the lower end than at the upper; namely, three bricks at the lower end, two in the middle, and one at the upper part.

H. Darrel, Eſq. of Cale-Hill (very much to his honour) is the firſt who has undertaken bog-drainage in this county, under the direction of Mr. Elkington. He commenced his operations in the ſpring of 1795, and has, in the courſe of about eight months, very effectually drained about ſeventy acres, which were worth about 7*s.* or 8*s.* per acre, and now will very ſhortly be to him invaluable, on account of their ſituation, cloſe to his manſion; but, independent of that circumſtance, this land will be increaſed in its annual value full 20*s.* per acre: by which, he has the acquiſition of an eſtate of 70*l.* per annum for an expence not yet aſcertained; but which will hardly exceed 200*l.* or 300*l.* Cattle have ſometimes been laid up on theſe bogs, ſo that they have been obliged to be drawn out by ropes from places which, in one year or leſs, from the time of the drains being cut, are become firm enough to bear the tread of horſes.

SECT. II. — *Paring and Burning.*

OF all the improvements in the cultivation of land that have been hitherto made in Kent, this ſtands foremoſt; ſome of the very worſt land having been made to produce excellent crops; and poor chalky downs, of ſcarcely any value in their original ſtate, are by paring and burning made to produce good turnips and clover, and crops of corn, often equal in value to double the fee-ſimple of the land. Inſtead of the land being injured by the operation, as ſome theoriſts imagine, provided it be under a proper ſyſtem of management and fairly dealt by, it is put into a progreſſive ſtate of improvement, from the time of its ſurface being burnt. It has frequently happened, that land, after burning, has been ſown with corn four or five years in ſucceſſion, without being folded with ſheep, or any part of its produce ever returned in manure; even charlock and other weeds have been ſuffered to remain, by which it has been annually burthened with a double crop: hence it has been left in an impoveriſhed ſtate, and the burning is unjuſtly condemned for the miſchief done by the negligence and rapacity of the cultivator.

Let the land, when burnt, be perfectly cleaned from charlock and other weeds, by growing turnips until the weeds are totally eradicated by hoeing, &c.; let the turnips be fed off the land, by ſheep lying on the land day and night; then ſow it with barley and clover; the latter to be fed off with ſheep, folding them on the land for wheat. Laſtly, return the ſtraw produced upon the land in manure mixed with clay or loam, or any other freſh earth that is near at hand, for a ſecond Norfolk rotation, which may be repeated; or the land may be ſown with ſainfoin, to remain till a turf is formed fit for paring and burning again. This plan being purſued, the practice of burning the ſoil will not give any cauſe of complaint, either to landlord or tenant. Theoriſts exclaim, that by paring and burning, the ſtaple of the land is reduced, and the ſoil is waſted; which may be ſomewhat true: but all this is very immaterial, if fine crops of corn can be produced where none ever grew before, and the land at the ſame time be improved.

The method of paring moſt in uſe, is with downſhare or breaſt-ploughs, taking off a turf as thick as the nature of the ſoil will admit, from half an inch to two inches; the thicker the better, provided there be a ſufficient portion of vegetable matter contained within it, to make it burn well; the expence for paring it a moderate thickneſs, where the land is not very flinty, is 20*s.* per acre; for laying it up in heaps and burning, 10*s.*; and for ſpreading the aſhes, 3*s.* A coat of manure is thus produced on the land, of from eighty to one hundred-and-ſixty cart-loads per acre, for the trifling expence of 33*s.* A hundred cart-loads of dung, purchaſed from neighbouring towns and villages, at the diſtance of three miles from the land, would coſt, carriage home included, ten times the price of downſharing, and yet would not improve the land more.

Where the land is well covered with turf, it may be ploughed for burning, about two inches deep, with a common plough, drawn by a pair of horſes, early in the ſpring; and as ſoon as a drying wind ſets in, the turf may be laid in heaps, and burnt by labourers for 1*l.* 1*s.* per acre; which will produce near two hundred cart-loads.

All waſte banks inacceſſible to the plough, and ſlips along road-ſides, are dug with a ſpade, and burnt to aſhes for 6*d.* a cart-load, of about thirty buſhels.

Theſe aſhes, carried out on fallows in June, at the rate of twenty cart-loads per acre, afford a moſt excellent dreſſing for a crop of turnips.

SECT. III. — *Manuring.*

THE ſorts of manure commonly in uſe in this county, are dung, ſheep-folding, chalk, turf-aſhes, ſoot, coal-aſhes, ſea-weed, woollen-rags, and lime; with a variety of other manures, too numerous and trifling to be particularized in a general report.

Dung of horſes, cattle, and hogs, is mixed together in large heaps, and laid in the fields intended to be manured, uſually on a layer of freſh earth, a foot or two in depth, dug out of hedge-rows, waſte banks, or uſeleſs ſpots of land. When the heap of dung is made up, ſome perſons give it a covering of mould; and it is an excellent practice to keep it moiſt, and prevent evaporation. After it has lain a month or two to ferment, it is trenched over at the expence of 3*s.* 6*d.* per hundred cart-loads; and then, after lying a few weeks longer, it is fit for uſe. This manure is laid on the land at the rate of from forty to ſixty cart-loads of twenty buſhels each per acre. The expence of carrying out the heap, when conveniently ſituated, is about 15*s.* per hundred cart-loads, and for ſpreading, 3*s.* 6*d.*

The principal part of this ſort of manure is carried out for wheat or beans. Some farmers dung for barley, and others for turnips.

Manuring with the ſheep-fold is practiſed on fallow-lands in the ſpring months, after barley ſowing, for turnips; then on fallows or clover-lays, for wheat; and when that ſeaſon is over, the fold is removed to either wheat ſtubbles or turnips, in order to fold the land for the ſucceeding crop of barley or oats.

Two hundred ſheep will fold about an acre in a week; the value of which is from 20*s.* to 30*s.* in proportion to the time of the year; the laſt folding in the autumn, next to the ploughing for wheat, being the moſt valuable.

Chalk is uſed to great advantage as a manure on ſome wet, ſtiff ſoils, having no calcareous earth; in quantity, from fifty to eighty cart-loads per acre. Its beneficial effects are ſaid to laſt twenty years, and the value of it is often eſtimated between outgoing and incoming tenants, when lately laid on, as high as 5*l.* per acre.

There are many ſoils, however (indeed throughout the greateſt part of this county, where chalk is in plenty) which derive no benefit from it. Some farmers, from obſerving the beneficial effects of chalk as a manure at other places, have been tempted to uſe it on their lands; where it has proved to be of no kind of uſe; and much time and expence have been entirely thrown away.

The beſt method of uſing it, is to ſpread it early in the autumn, in order that it may be thoroughly drenched with rain, that the froſt may have its full operation upon it; by which means it is well pulverized when the thaw comes on, and will mix the more readily with the ſoil.

Old graſs-lands on wet ſandy or clay ſoil, over-run with furze or ruſhes, are greatly improved by chalk.

Turf-aſhes, if ſpread on poor chalky thin lands for turnips, at the rate of about twenty cart-loads of thirty buſhels each per acre, will ſeldom fail to produce a good crop: and it is well known, that if once a good crop of turnips can be obtained on ſuch poor lands, a good foundation is laid for future improvements.

Turf-aſhes are often uſed for wheat, and ſometimes for other crops; but there is no application of them ſo advantageous as that of uſing them for turnips.

Soot is a valuable manure for a top-dreſſing on ſainfoin, clover, lucern, and meadows: it is uſually purchaſed at the neighbouring towns for 6*d.* per buſhel, and ſown on the land at the rate of forty or fifty buſhels per acre, early in the ſpring.

Coal-aſhes are a good manure for the ſame purpoſe; but not ſo much uſed, on account of their conſumption in the manufacture of bricks: the price at the towns is about 2*d*. per buſhel: they are ſown on the land in the ſpring, at the rate of four or five chaldrons per acre. Cold, wet, clay meadows are much improved by them.

Sea Weed. This is a moſt excellent manure, being a maſs of vegetable matter, ſtrongly impregnated with ſalt. Immenſe quantities are ſometimes thrown by the winds and tides on the ſhores of Thanet; from whence it is carted through ſloping paſſages in the cliff to the land.

When a quantity comes aſhore, after a gale of wind, the farmers ſet all hands to work, to get as much as poſſible while the tide ſerves, leſt the next ſhould carry it away; and if it happens in the night, they work at it then till ſtopped by the waters coming on. Some farmers will get up in one tide two or three hundred cart-loads. Thoſe who live at a diſtance, hire ſmall ſpots of land, of a few perches, to lay the freſh weed upon as they get it; and carry it away to the farm at a more convenient opportunity. It ſometimes comes aſhore in quantities that amount to ſeveral thouſand cart-loads; and perhaps all ſwept away by the next tide. The principal method of uſing it, is by mixing it in layers among the farm-yard dung in the mix-hills. It is of great uſe in helping to rot the dry part of dung carried out of the farm-yard in ſummer.

Woollen Rags. The chief uſe of theſe as manure, is to lay them round the hills of hops, &c.: the method is to open the hill, and place the rags, ready cut into ſmall pieces, two or three inches ſquare, cloſe round the roots, a little below the ſurface of the land, and immediately cover them up with mould. A ton of rags per acre is the uſual quantity, which is about two pounds and a quarter to every hill of hops: they coſt from 4*l*. to 6*l*. per ton. For dry gravelly ſoils, this is a good manure, as the rags operate in the nature of a ſpunge, to retain the moiſture in a dry ſeaſon, and thereby ſupport vegetation; but, on the contrary, in a rainy ſummer it is ſuppoſed they do great injury, by producing the mould.

Lime. The tenants of the Weald of Kent are bound by the covenants of their leaſes, to lay on their fallows a hundred buſhels of lime per acre; and they generally lay on double that quantity. This lime is made of chalk, from the hill which runs through the county from Folkſtone to Maidſtone, &c.; and is brought from the diſtance of twenty miles to ſome of the pariſhes, though there is excellent limeſtone in the centre of the Weald; and even in the pariſh of Betherſden, famous for a fine limeſtone, called Betherſden Marble, chalk-lime is preferred; and the chalk to make it is procured at a conſiderable diſtance.

The lime is diſperſed in heaps, of a load or two at a place, during the ſummer, and ſpread with a ſhovel out of a cart before the laſt ploughing for wheat; which is generally ſown in the month of October. Lime is very little uſed in any other part of this county: it has been tried on various ſoils in Eaſt Kent, ſuch as chalk, clay, loam, and hazel-mould, without any apparent good effect.

Sand has been ſpread, at the rate of a cart-load a perch, upon ſtiff cledge ſoils, without being of any uſe; and tanners bark, at the rate of fifty cart-loads per acre, has been ſpread on chalk ſoils, and ploughed in for turnips, ſucceeded by barley: both crops very inferior where the bark was laid on, to that of ſome adjoining land manured with turf-aſhes.

Kelp, ground to powder, has been ſown at the rate of twenty cwt. per acre on paſture, ſainfoin, and clover, without any ſenſible effect. There can be no doubt, but that many valuable diſcoveries may be made, as to the uſe and effect of other ſubſtances as manures, through the aid of chymiſtry; but theoriſts in that ſcience are too apt to recommend compoſitions which, when put to the trial, prove uſeleſs. Writers, therefore, on this ſubject, ſhould be cautious how they recommend expenſive manures, without proof of their utility.

SECT. IV. — *Weeding.*

THIS county has long been noted for its clean crops of corn: and a ſlovenly farmer is an object of reproach to all his neighbours. The huſbandry of Eaſt Kent and the middle of the county, about Maidſtone, is extremely neat. There are three different modes of weeding the corn uſed here (viz.) horſe-hoeing, hand-hoeing, and hand-weeding. The bean and pea-crop is invariably horſe-hoed two or three times; the firſt, as ſoon as the rows appear; they are then hoed by the hand along the ſides of the furrows, with a plate about five inches wide; as ſoon as that is done, they are horſe-hoed a ſecond time; and if a ſecond hand-hoeing is thought neceſſary, it is repeated; and then the beans are horſe-hoed a third time with an earthing plate, to raiſe the mould againſt their ſtems.

Peaſe are ſeldom horſe-hoed more than twice; both crops are uſually looked over by women and children, who pick out by hand ſuch weeds as the hoes have left. Many other crops of corn in rows or drills, ſuch as canary, barley, wheat, and oats, are both horſe and hand-hoed; and all crops in moſt kinds of land in the eaſtern part of the county, but more particularly in the beſt lands, are weeded in this manner: A gang of from ten to twenty, chiefly boys and girls, walk through the corn in June, and the beginning of July, attended by a careful man to look after them; and with angular weed-hooks cut up thiſtles and other weeds; at the ſame time, pulling up by the roots ſuch weeds as will eaſily draw.

It is contrary to reaſon and nature, to expect that the earth can produce a full crop of corn, and a crop of weeds at the ſame time; and therefore, if the weeds are eradicated, moſt certainly a better crop of corn may be expected.

The pooreſt land which ſtands moſt in need of every aſſiſtance that art and induſtry can give it, is generally moſt neglected; crops of charlock in full bloom are ſeen on ſome chalky downs in the month of June, overtopping the puny half ſtarved corn, dazzling the eyes of the beholder with its luſtre, but blaſting the hopes of the penurious cultivator. However, it is much to the credit of Kentiſh farmers, that there are not half the weeds to be ſeen now on the poor lands that there were twenty years ago. The good lands have always been kept very clean.

Thiſtles are often cut out of the corn with ſmall ſpuds *, in the ſame manner, from graſs-lands; but the beſt and moſt certain method of deſtroying thiſtles on graſs-lands, is to let them alone till they are in full bloom, and then to mow them with a ſcythe; for if they are cut while young, they produce freſh ſhoots from the ſides of each plant; but when mowed in full bloom, the ſtem is hollow; by which the rain-water and dews deſcend into the heart of the plant, and it ſoon dies.

SECT. V. — *Watering.*

THE practice of irrigating meadows, is an improvement of infinite importance; by which, many poor graſs-lands are made to produce abundant crops, and good lands are made much more valuable; but I am ſorry to ſay, the practice has yet very few friends in this county.

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* Chizel-ſhaped.

There are many rivers, rivulets, and rills flowing through various parts of Kent, offering their ſtreams for the melioration of many thouſand acres of graſs-lands; ſome of which are at preſent poor, and unproductive, and at too great a diſtance from manures, to receive any aid of that kind.

The waters being properly thrown over theſe lands, would render them capable of producing a much greater quantity of hay, and of maintaining an increaſed number of valuable animals; thereby greatly adding to the ſtock of manure for the improvement of other lands, and ultimately increaſing the employment of labourers, and conſequently adding to population.

Before any attempt is made to irrigate the land, it ſhould be well drained; then, having the command of the water, good crops may be produced at pleaſure.

Bogs, when drained, and the ſoil is become a firm compact body, will become by irrigation, the richeſt meadow, and be increaſed in their annual value from 1*l.* to 2*l.* per acre; and, as water is always at command on an old bog, the expence of laying it out for irrigation muſt of courſe be very trifling, in compariſon with the magnitude of improvement.

There are two material objects obtained by this practice at one time; namely, manuring the land, and watering it.

It is a well known fact, although ſeemingly a paradox, that irrigating is moſt beneficial in the greateſt floods of rain; becauſe then the waters are moſt impregnated with rich particles of manure, waſhed down from the arable uplands;

lands; and when thrown over meadows, form a thick ſediment, that operates as a rich and fertilizing manure.

It is to be obſerved, that although theſe lands are remarkably kindly for ſheep, particularly ewes and lambs in the ſpring, they are certainly productive of the rot, if ſheep are put upon them in the autumn.

A gentleman in Eaſt Kent, a few years ago, turned a little rill over a meadow, and made his graſs grow very luxuriantly; and, not being acquainted with the buſineſs, frequently, in the autumn, turned a large flock of ſheep into it; the whole of which he loſt the following ſpring by the rot; and the land has never been irrigated ſince.

It muſt be obvious to every one, that to have the command of water, by which a dry ſoil can be ſaturated with moiſture in a burning time, muſt be the means of promoting vegetation, when otherwiſe the graſs would be dying away.

When farm-yards are ſituated on a declivity, the waſhings and overflowings of them are invariably turned into conductors, to lead them away to diſtant rivers. This is entirely throwing away a great treaſure, which might be conveyed at pleaſure to any adjoining field below the level of the farm-yard †.

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† For further information on this ſubject, ſee Boſwell's Irrigation, and Mr. Davis's excellent Account of Wiltſhire.

CHAPTER

CHAPTER XIII.

LIVE STOCK.

SECT. I.—*Cattle.*

THIS not being a dairy or grazing county for cattle, we have no particular breed that may be allowed the appellation of Kentiſh Cattle. The ſort bought in by graziers to be fattened for ſale in the marſhes of Eaſt Kent, are from North and South Wales, which are brought by the Welch drovers to Canterbury and other markets; and the chief part of the dairy-cows are ſelected from thoſe droves: others are a mixture of thoſe and home-bred cattle, of various ſorts and ſhapes. The principal object as to a cow here, is the giving a large quantity of milk. If a cow, though ever ſo ugly, is a good milker, and produces a cow calf, it is often reared for the dairy. There are no ox-teams uſed here; which is partly the occaſion of there being but little attention paid to the ſize and ſhape of the cows.

It is ſomewhat extraordinary, and much to be regretted, that, in a county where agriculture is arrived at ſuch great perfection, there ſhould be ſo little attention paid to the breed of cattle.

In Weſt Kent, the dairies are ſmall, ſeldom exceeding ſix or eight cows, and thoſe are home-bred, between thoſe of Staffordſhire, Wales, and Suſſex. Some of the ſmall dairies of three or four cows, have the Welch ſort only.

In the Weald of Kent, the cattle are of the Suſſex breed, both for the pail and plough.

Some farmers are more careful in the choice of bulls and breeding-cows than others; but there is not that attention paid to this department of farming buſineſs as in the midland counties. The fineſt bull of this diſtrict would hardly ſell for twenty guineas, although he may be very handſome in every reſpect, and weigh, if killed, fifty or ſixty ſcore. Theſe cattle are almoſt invariably of a deep red colour, and remarkable for a kindly ſoft ſkin. Their bone, in proportion to their great ſize, is ſmall. The beſt of them have a great breadth of loin, and length of ſirloin and rump, with a ſmall head and neck; their horns are ſhort, and ſtand upwards. They have a ready diſpoſition to fatten; and ſeem to deſerve the attention of the curious in cattle, as much as any ſort in the kingdom. If the ſame care was taken here in breeding them, as is done in other counties, the breed might be greatly improved; and probably ſome of the beſt might be found equal in value to a Shakeſpear †, or a Brindle Beauty ‡.

Within theſe few years, ſome cows have been brought from the iſlands of Alderney and Guernſey, for the uſe of the dairies of gentlemens families. Theſe are a very ſmall ill-made kind of cattle; but they are remarkable for giving milk of a very rich quality, yielding a greater portion of cream, and making more butter from a given quantity of milk, than any other kind of cattle; the butter too is of a beautiful yellow colour, and is highly

† A bull-calf, ſo called, ſold at public auction, at the ſale of the late Mr. Fowler's live ſtock of Rollwright, near Chipping Norton, for 79*l.* 8*s.*
Since ſold for four hundred guineas.

‡ A cow, thus named, ſold at the ſame ſale for 273*l.*

eſteemed for its fine flavour. Whether theſe kinds of cows will preſerve their ſuperiority in this reſpect many years, if bred and kept in this county, time only can diſcover; but it is moſt probable, that ſoil and climate will operate in the courſe of time, ſo that there will be no perceptible difference in the quality of the cream and butter between theſe and common Engliſh cows.

An experiment was tried here laſt ſummer between a large home-bred cow, of eight years old, and a ſmall Alderney, two years old:

	gal.		lb.	oz.	
The home-bred cow, in 7 days, gave	35,	which made	10	3	Butter.
The Alderney cow, in the ſame time, gave	14	———	6	8	

The cattle which are fed in Romney Marſh, are taken into keep chiefly from thoſe farmers who keep lambs during the winter. Thus, by a temporary exchange of ſtock between the farmer and the grazier, each party is accommodated; for if the grazier could not put out his lambs in the winter, he muſt alter his preſent ſyſtem of grazing; and the upland farmer would be very much diſtreſſed with his bullocks in the ſummer, when his paſtures are reſerved for hay, or fed with his dairy. The farmer keeps the lambs about thirty weeks from the beginning of September; and the grazier keeps the bullocks about twenty weeks from the middle of May.

Some graziers buy Welch calves in the autumn, put them out to keep in farm-yards for the winter, and in the ſpring place them among their ſheep, where they get fat in a few months, and weigh from eighteen to twenty-two ſcore each.

A very few oxen are fattened, which are bought in from the plough-teams of the wealds of Kent and Suſſex:

they are very large, and have a reſerve of the beſt graſs to themſelves. From their ſize, they require a longer time to get fat than the ſmaller ſorts: they uſually weigh from forty-five to ſeventy ſcore each.

Before concluding this ſection, it may be proper to obſerve, that farmers at different parts of this county have been, and ſtill are, in the habit of fattening oxen, and other cattle, in ſtalls, on potatoes and hay, or ſtraw; others on turnips and cabbages, and hay or ſtraw; and likewiſe on oil-cake and hay. By theſe means the cattle are frequently made very fat: but it is generally obſerved by the moſt experienced men, that this ſyſtem is not profitable, the chief advantage being that of raiſing a ſupply of good manure for the arable lands: a conſideration, which by ſome is not thought to be of ſufficient importance to pay for the riſk and trouble of attending ſtall-fed oxen.

SECT. II.—*Sheep.*

KENT has long been famous for a fine breed of ſheep, called in the county, Romney Marſh Sheep; but in Smithfield, where great numbers are ſold every week, Kent Sheep. They are remarkable for arriving at an extraordinary degree of fatneſs at an early age, and for producing a large fleece of very long fine wool. Theſe circumſtances combined, render this perhaps the moſt valuable of any breed in the kingdom, not excepting the famous Diſhley ſort, whoſe wool, confeſſedly, is very coarſe.

Their carcaſes and legs are rather long, and bones large, in compariſon with ſome other breeds; they have no horns; and their faces and legs are white.

The fat wethers at two years old, weigh from twenty-two to twenty-eight pounds per quarter.

Their wool is the combing ſort of the firſt quality, being very long and fine; the fleeces of the young ſheep are about five pounds weight, thoſe of the ewes ſix, and the fattening wethers eight or nine pounds each. This Marſh is ſuppoſed to produce twenty pounds of wool per acre, which, for 44000 acres within the county, is 880,000 pounds of wool, or 3666 packs per annum. But as the greater part of the land has above four ſheep per acre at ſhearing-time, and as the average weight of the fleeces is certainly above five pounds, the annual growth of this Marſh, in the county of Kent, is probably full four thouſand packs.

This is the principal ſort of ſheep kept in this county. There are, however, many of the upland farmers who keep thoſe of Wiltſhire, Dorſetſhire, and the South Downs. As theſe will, no doubt, be properly deſcribed in their reſpective County Reports, I ſhall forbear to mention them here.

The management of ſheep in the different parts of Kent, is as follows:

In the eaſtern part, the flock-farmers buy in lambs at Romney Fair, the twentieth of Auguſt, at from 12*s.* to 14*s.* each, and when they have kept them two years, they either ſell them lean to the fatting-grazier, or make them fat themſelves on turnips, and pea or bean-ſtraw. Sainfoin and clover hay are generally too valuable at the watering places to be uſed for that purpoſe. Oats, and cullings of garden-beans, are ſometimes given to finiſh them in the ſpring. When theſe two yearling ſheep are ſold in the autumn to the graziers, the price is from 24*s.* to 28*s.* each; and when made fat, produce from 34*s.* to 42*s.* according to their ſize and fatneſs †.

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† Since returning the original report to the Board, prices have very conſiderably advanced.

The few ſheep bred in theſe marſhes are of the ſame ſort, except ſome ſmall parcels of Dorſetſhire and South Down ewes, which are bought to make early fat lambs; and the ewes are made fat in the autumn.

Almoſt the whole of the ſheep kept on the upland farms of Eaſt Kent, are the true Romney Marſh breed; whoſe carcaſes and bones being large, and wool long and heavy, they require rich land and good keep to make them fat. It ſeems quite contrary to reaſon and nature that they ſhould be equally adapted to rich marſh-land and poor chalky downs; and conſequently they are not ſo fit for this diſtrict, at leaſt the chalky part of it, as the South Down ſort, whoſe natural ſoil is a fine turf on chalk-hills. Impreſſed with this ſentiment, the ſurveyor himſelf has, for theſe ſeven years paſt, kept no other than South Down ſheep, and has every reaſon to be ſatisfied with them; his flock is about 1000; — 400 of which are breeding ewes.

The ſheep in the Iſle of Shepey are of the Romney Marſh ſort, true Kents. The ſoil being much inferior to Romney Marſh, the ſheep are ſomewhat ſmaller; and, from the ſame cauſe, their wool is lighter and finer. Some graziers get rams from Romney Marſh; others prefer their own ſort, and but very few, if any, pay that attention which it is their intereſt to do, to the wool of the rams they uſe. The wethers are fattened at three years old, then weighing from twenty to twenty-four pounds per quarter.

In Weſt Kent, a flock of ſheep under a ſhepherd, and folded at night, is a very rare ſight; it is only a very few of the largeſt farmers who follow that practice.*

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* It is only a few years ſince the practice of folding at all in Middle Kent has prevailed (except on very large farms); perhaps the ſmallneſs of them in general may have been, in ſome reſpects, the cauſe of it. The practice

The ſheep moſtly kept in this diſtrict are the South Down ſort, bought in wether-lambs, at the autumnal fairs on the Downs, chiefly at Lewes, the ſecond of October. They are kept the firſt winter on ſtubble-land, with graſs and a few turnips, and on graſs and ſeeds in ſummer; and frequently are fatted on turnips the next winter, before they are quite two years old: this is become the favourite ſort within theſe few years, and increaſes annually in this diſtrict.

The other ſorts of ſheep kept here, are the Weſt Country, from Wiltſhire and Dorſetſhire; the wethers are brought in at all ages, to be fattened on turnips.

There are hardly any ſheep bred in the Weald of Kent, excepting a few for early fat lambs, of the Wiltſhire and South-Down ſorts.

Some of the Wiltſhire wethers are bought in to fatten on turnips; and a few South Down wether-lambs are bought in the autumn, and kept on the drieſt parts until they are two years old, and then made fat for ſale on turnips or meadow-lands.

It has been mentioned that the grand ſyſtem of management in Romney Marſh, is that of breeding, rearing, and fattening ſheep; and it remains only to deſcribe the mode.

The rams are uſually put to the ewes, allowing one to forty or fifty, and ſometimes ſixty, from the twelfth to the ſixteenth of November, and ſtay with them about five weeks. The ewes live entirely on the graſs, without any hay, during the winter: in deep ſnow they ſcrape with their feet, and obtain a ſubſiſtence, although they then loſe fleſh, and ſometimes become very poor by their

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practice of it is now gaining ground, even on the ſmaller farms, as the advantages attending it are too obvious to eſcape common obſervation.

A note by a Middle Kent Farmer.

yeaning time. This Marſh produces many twins; but a great number are loſt; ſo that moſt graziers conſider their crop not a bad one, if they wean as many lambs as they put ewes to ram.

The lambs are weaned the firſt or ſecond week in Auguſt, and very ſoon after put out to keep to the upland farmers of the county, where they remain till the fifth of April, at from 2*s.* to 3*s.* per ſcore, per week. When they return to the Marſh, they are put on the pooreſt land, or ſuch fields as the grazier thinks want improvement by hard ſtocking; which is here called tegging a field, and is held to be of great ſervice. Theſe young ſheep are placed in the fields in proportion to what it is judged each will maintain, from the fifth of April until Auguſt, which is at the rate of from four to eight per acre.

The wether-tegs in the autumn are removed to the fatting, and the ewe-tegs to the breeding grounds, among the two and three yearling ewes. The wethers remain till July or Auguſt following, when, as they become fat, they are drawn out and ſold to the butchers at the Marſh markets, or are ſent to Smithfield. The two yearling wethers, when fat, at this ſeaſon weigh from twenty to twenty-eight pounds per quarter; and ſome of the largeſt and beſt fed, a few pounds more. The old ewes, here called Barrens, are put to fattening as ſoon as their milk is dried after the third lamb, which is at the age of four years, on ſome of the beſt land; where they are placed from two to three per acre for the winter. Theſe, in favourable winters, are ſometimes made fat and ſold in the ſpring, ſoon enough for the ſame field to take in a freſh ſet of wethers, and make them fat by the autumn; but this can only be done by light ſtocking.

The practice of fattening ſheep on turnips, aſſiſted by oil-cake, corn, hay, ſainfoin, &c. is greatly in uſe among the upland farmers of this county; not ſo much for the profit by feeding with thoſe articles, as for the great improvement of the ſoil where the turnips are fed off. The manure from ſheep fed on oil-cake and turnips, is reckoned very enriching to the land.

A great number of fold-flocks of lean ſheep are kept by the farmers of the eaſtern part of this county, of from eight to twenty ſcore in number. Theſe are each attended by a ſhepherd, who removes the fold every morning to freſh ground, at ſix o'clock in ſummer, and at break of day in winter; the flock is then driven away to the moſt inferior keep at the firſt part of the morning, and is returned into the fold for two or three hours in the middle of the day, while the ſhepherd goes to dinner; in the afternoon it is gradually led to the beſt keep on the farm, that the ſheep may return full fed to the fold in the evening.

Great caution is neceſſary in feeding ſheep on clover in ſummer, and on turnips in the firſt part of the winter, as otherwiſe they will die in great numbers, by being, what is provincially termed *blown*; which is occaſioned by taking the clover and the young turnip-tops into the ſtomach too haſtily when the ſheep are hungry, ſo that there is not ſufficient time for digeſtion; by which the air is generated to ſuch a degree in the ſtomach, that great ſwelling enſues, and the animal ſoon dies.

Attentive ſhepherds will, in the firſt inſtance, take care to feed their flocks ſo as to prevent this diſeaſe, by keeping them from ſuch ſtrong food while they are hungry. As yet, we ſeem not to have any effectual remedy for this diſeaſe; but the South Down farmers ſay that half a pint of linſeed oil, given to a ſheep when firſt *blown*, is a certain cure.

SECT. III. — *Horſes, and their Uſe in Huſbandry, compared with Live Oxen.*

THERE are many very fine teams, each conſiſting of four horſes, in the hands of the farmers of the Iſle of Thanet and Eaſt Kent, ſome of which were bred here from a ſort that has been long eſtabliſhed; and others are a croſs, between the old Kentiſh cart-mares and ſtallions from the midland counties, or half-bred Flemiſh; and within theſe few years, there have been ſeveral very good mares brought from Flanders, which have coſt from 26*l.* 5*s.* to 42*l.* each. Black is the favourite colour; and there are but few of any other; they are from fifteen to ſixteen hands and an half high, with much bone, and good action. They plough with four in winter, and work an acre and an half in a day; and in barley-ſeaſon with two, and then plough two acres a day, with a *mate* to lead the horſes.

Many farmers have great pride in their fine teams; which are often too fat to do the quantity of work in a day they ought.

In the Iſle of Shepey, the horſes for the plough are bred principally from a ſort that has been in the iſle time out of mind. The mares are covered by ſtallions that come over from other parts of the county in the ſeaſon; they are ſomewhat of a ſize ſmaller than thoſe of other parts of Kent, where the land ploughs much lighter. Whether ſmaller horſes are found to anſwer beſt here, it is not eaſy to determine; but it is natural to ſuppoſe, that ſuch very ſtiff heavy land muſt require ſtrong horſes; it ſeems, therefore, that the breed of them here is become ſmall from neglect; and it would perhaps be better if more attention was paid to the breeding and rearing the colts in theſe parts.

In Weſt Kent there are many fine teams of cart-horſes, but very few are bred there; the farmers buy them of dealers, who bring them at the age of three, four, and five years, from the midland counties.

The Weald is the only part of the county where oxen are generally uſed for draught. Here it is common to ſee horſes and oxen together, both in the plough and on the roads; eight or ten oxen, with a horſe or two before, to lead them along: frequently ten oxen, without any horſe, are ſeen drawing a plough; which would be much more expeditiouſly done by four horſes. An acre a day is the common yoke for eight or ten oxen in wet, heavy, land, where four horſes would plough an acre and a quarter. On farms having a greater portion of rich meadow than arable, it perhaps may be proper to employ oxen as beaſts of draught, becauſe they are in a growing ſtate, and increaſing in their value to fatten; and becauſe they are fed at a ſmall expence on good paſture-land; but on farms not having a greater portion of paſture than arable, and that paſture not being rich good land, the expence of ſupporting the requiſite number of oxen, exceeds the expence of ſupporting the requiſite number of horſes. There is beſides, another diſadvantage attending the uſe of oxen: the ſlowneſs of their pace is apt to lead the ploughmen into ſlothful habits, which are ſeldom got rid of. By ſome it is contended, that oxen are ſo valuable to fatten when they have worked for five or ſix years, that, on that account only, they ought to be more uſed as beaſts of draught; but it ſhould be recollected, that horſes, when they have worked the ſame time, are more valuable than oxen, becauſe they will then ſell for more money, and will work eight or ten years longer; during which time, they will earn by their labour, perhaps double the value of a lean ox at nine years of age; and therefore the value of an ox, after working five or ſix years, is not a ſufficient argument to recommend them for general uſe.

When horſes have laboured a great many years, as a great many do, they owe their maſters and the public nothing; and therefore they ought not to be condemned as beaſts of draught, in favour of oxen, when their labour is done, and becauſe they are only fit for the hounds.

In ſhort, neither of theſe animals is to be generally recommended in preference to the other. Nature has provided ſituations beſt adapted for each of them.

The breeding of horſes is not practiſed in this county as a ſeparate branch of buſineſs, as in many parts of the north: but there are ſome farmers who breed a colt or two annually; though not ſo many of late years as heretofore.

The great ſupply of draught-horſes is from the midland counties, brought hither while colts and fillies, by dealers who attend the fairs and markets.

SECT. IV. — *Hogs.*

THE hogs of the eaſtern part are of various ſorts, ſome farmers preferring large, and others ſmall ones; but there are none very large and coarſe. The ſmaller ſorts are thoſe mixed with the Chineſe breed. They are fattened at the age of eighteen or twenty months, for the uſe of the family of ſervants in farm-houſes; and made to weigh from ten to twenty-five ſcore each. The Chineſe fatten readily, but are generally thick hided, and do not bear the cold well; and from their tenderneſs, are very apt to hide in ſtable-dung, and get the mange.

A great number of pigs are reared in this diſtrict, and fed on the corn-ſtubbles for the butchers, which are killed in the autumn for roaſting-pork, at the age of three or four months, then weighing as many ſcore pounds each.

Some are fattened and killed at from ſix to twelve months old, and ſold to ſmall families in the neighbouring towns and villages, or to pork-butchers, who retail them in ſides and quarters to thoſe families. The buſineſs of rearing and fattening hogs for ſale, is generally conſidered as a bad one.

In the weſtern part of the county, there are a few farmers who have the larger kind, or Berkſhire breed, of hogs; but in general, they are mixtures of many different ſorts.

Little attention is paid to this animal, though the breed might, doubtleſs, be very much improved with proper care.

Many hogs are kept in the woods of the Weald of Kent in the autumn, on acorns, and fattened on corn in the winter.

Pork is the chief food of farm-houſe ſervants and labourers in huſbandry in this county; and there are very few of the induſtrious workmen that do not fat a hog or two every winter. When hog-corn, ſuch as beans and peaſe, is very dear, the farmers often let their workmen have a reaſonable quantity at an under-price. This tends to keep up a mutual good underſtanding between the farmers and their labourers.

SECT. V. — *Rabbits.*

THERE is but a very ſmall portion of this county employed as rabbit-warren. Brabourn Lees, near Aſhford, and ſome ſmall warrens near Folkſtone, are the only ones that I know of. The rabbits on Brabourn Lees have ſome years, like ſheep, been infected with the rot. However valuable they may be to the proprietor of a barren ſoil, yet they are often a nuiſance, by the miſchief they do in the neighbouring corn-fields.

Their ſkins, when in ſeaſon, are nearly as valuable as their fleſh; and they are very prolific.

SECT. VI. — *Poultry*.

GEESE and turkies, fowls and ducks, are bred in this county ſufficiently to ſupply the inhabitants, and a few to ſpare for the ſupply of the ſhipping that ſail from Graveſend and the Downs.

The price of poultry is very much increaſed within theſe few years. Turkies now ſell as high as 6*s*. or 7*s*.; geeſe, 4*s*. or 5*s*. each; and ducks and fowls, 3*s*. 6*d*. to 4*s*. per couple.

SECT. VII. — *Pigeons*.

THIS kind of poultry, if it may be ſo called, is not in ſuch plenty as ſome years back; a number of pigeon-houſes have been deſtroyed, on account of the miſchief they do to the thatch, as well as the corn-fields. The dung of them is valuable to ſow on clover; but it is an article procurable in ſo trifling a quantity, as hardly to merit notice. The value of pigeons is about 5*s*. or 6*s*. per dozen.

SECT. VIII. — *Bees*.

THE few bees there are in this county, are chiefly in the hands of the ſmall farmers and cottagers. There are ſome inſtances of the latter claſs ſometimes paying their rent by the ſale of their honey and wax. There is, no doubt, a certain extent to which the quantity of bees might be increaſed; but what the increaſe might be, it is impoſſible to ſay; it ſeems, however, that a great many more might be kept, and, to appearance, without any expence or injury to any kind of crops; and, if ſo, it certainly is a thing well worth the attention of the Honourable Board, to propoſe ſome method of encouraging an increaſe of them †.

CHAPTER XIV.

RURAL ECONOMY.

SECT. I. — *Labour — Servants — Labourers — Hours of Labour.*

THE price of labour varies in different parts of the county. The regulating medium for all taſk-work, is the value of the day's labour.

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† See Wildman on Bees.

Price of Labour.

	s.	d.		s.	d.
Labourers per day, of ten hours, from	1	6	to	2	0
Thraſhing wheat, per quarter ‡	2	0	to	3	0
Barley	1	4	to	1	8
Beans	1	2	to	1	8
Oats	1	0	to	1	6
Peaſe	1	6	to	2	0
Canary ſeed	6	0	to	7	0
Clover ſeed, per buſhel	5	0			
Spreading dung, per hundred cart-loads, twenty-four buſhels each	3	6	to	4	0
Turning dung	3	6	to	4	0
Making hedges, per rod	0	2	to	0	4
If plaſhed and bound	0	6			
Hoeing beans per acre, firſt time	3	0	to	3	6
Ditto, ſecond time	4	0	to	4	6
Peaſe	3	0	to	4	0
Dutch-hoeing canary and barley, per acre	1	8	to	2	0
Common hoeing	3	6	to	4	0
Hoeing turnips, per acre	5	0	to	6	0
Reaping of wheat per acre	8	0	to	16	0
Mowing barley and oats	1	8	to	2	6
Binding and ſhocking	1	8	to	2	6
Cutting beans and binding	5	0	to	6	0
——— peaſe without binding	4	0	to	5	0
——— canary or radiſh ſeed	6	0	to	7	0
Mowing ſainfoin	2	0	to	3	0
——— clover hay	2	0	to	3	6
——— clover ſeed	2	0	to	2	6
——— graſs in the marſhes and meadows	2	6	to	3	6

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‡ This year, 1795, by the badneſs of the crop, ſome farmers pay 10*s.* per quarter.

Waggoner's

	£.	s.	d.		£.	s.	d.
Waggoner's wages per annum, and board —	10	0	0	to	13	0	0
If a married man, and boards himſelf, per week —	†0	10	0	to	0	10	6
Second ploughman, at per annum	9	0	0	to	11	0	0
Third ditto —	8	0	0	to	10	0	0
Waggoner's mate —	6	0	0	to	9	0	0
Second plough-boy —	4	0	0	to	6	0	0
Third ditto —	3	0	0	to	5	0	0
Bailiff —	12	0	0	to	16	0	0
Dairy-maid —	4	0	0	to	5	0	0
Cook-maid —	4	0	0	to	5	0	0
Shepherd, per week —	0	9	0	to	0	10	0
Womens wages for weeding, per day			8	to	0	0	10
Children, from ten to thirteen years old -					0	0	6
Value of ploughing an acre of land	0	7	0	to	0	10	0
A harveſt-man for five weeks, with board —	3	10	0	to	4	0	0
Without board —	5	5					

Hop-Garden Labour.

	£.	s.	d.		£.	s.	d.
Per day —	0	1	8	to	0	2	0
Digging, per acre —	0	15	0	to	1	0	0
Cutting, per acre —	0	5	0				
Poling —	0	10	0				
Sharping old poles —	0	2	0				
Tying —	0	10	0				
Crowning, a ſhovelful of mould to every hill, when cleanſed of ſuperfluous bine —	0	1	6				
Half hilling —	0	3	0				

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† With wheat and pork at reduced prices.

	£.	s.	d.		£.	s.	d.
Whole-hilling, or ſecond operation	0	2	6				
Summer-hoeing, per acre —	0	5	0				
Picking by the baſket, of five buſhels —	0	0	7	to	0	2	0
Drying, per week, with a quart of ſtrong beer per day -	1	1	0				
Compoſition for tithe, per acre	0	10	†	to	1	5	0
Firſt year of poling		5		to	0	7	
Bagging, per bag —	0	1	0				
——— per pocket —	0	0	9				
Sharping new poles, per hundred	0	0	6				
Shaving —	0	1	6				
Drawing new poles into the ground, per hundred -	0	0	3				
Stripping poles of the bind, per acre	0	2	6				
Opening the hills, per acre	0	3	6	to	0	5	0
Stacking poles, per acre —	0	2	6				
Annual expence of an acre of hop-ground, from	20	0	0	to	30	0	0
Cleaning marſh-ditches, per rod	0	1	0	to	0	2	0
Cutting ant-hills, per acre	0	5	0	to	0	11	0
Carting them together	0	5	0	to	0	11	0
Value of ploughing an acre of land in ſtiff marſh-lands -	0	10	0	to	0	12	0
Thatching, per hundred ſquare feet	0	3	0	to	0	3	6
Carpenters per day, and 4*d.* allowance for beer	0	2	4	to	0	2	6
Bricklayer, with like allowance	0	2	6	to	0	2	8

Since the commencement of this ſurvey, the ſcarcity of labourers, and high price of all kinds of proviſions, have together made the price of labour much higher than above ſtated; but ſome pariſhes allow corn at a low rate to their workmen, inſtead of raiſing the price; others raiſe money for them by aſſeſſments; and ſome pay an additional price for the labour.

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† The moſt general price.

Upon the whole, the price of huſbandry-labour is nearly double what it was thirty years ago.

In moſt parts of this county the labour is done by the piece; which is by far the beſt method for the employer, the employed, and the public; becauſe the labourer has the opportunity, by greater exertions, of earning more money; and the maſter has more buſineſs executed by the ſame hands. The maſter's eye is only neceſſary to ſee that the work is properly done; and the community is benefited in proportion to the additional quantity of labour thereby performed by the ſame number of inhabitants of the country.

When a number of labourers work together by the day, much time is loſt by idle converſation. Servants wages are not ſo much increaſed in the laſt thirty years as the prices of labour; about twenty per cent. being the full of the advance.

The ſcarcity of yearly ſervants is much greater along the coaſt than in the interior of the county; and their general conduct and behaviour are much better in the inland parts.

Labourers, ſince the commencement of the war, by emigrations to the army and navy, are become exceedingly ſcarce; and the price of labour is of courſe advancing. The hours of labour, in ſummer, are from ſix o'clock in the morning till eleven; and from one in the afternoon, till ſix in the evening, allowing half an hour for breakfaſt, in caſe that meal is not eaten before ſix o'clock; and then working till half paſt eleven; ſo that the ſtandard day's labour is ten hours; but there are few inſtances in which it is ſtrictly adhered to. In winter, the time of working for a day is as long as daylight will permit, making the dinner-time as ſhort as poſſible.

Upon the whole, a day's labour is generally much ſhorter than formerly, owing partly to the ſcarcity of workmen, who well know that if one maſter will not give them their hire for a ſhort day, another will; and partly to the inattention of maſters and their bailiffs to the hours of working.

SECT. II. — *Proviſions.*

THE eaſy communication between all parts of this county and the metropolis, renders the markets of Smithfield and Mark-lane the regulating medium, by which the prices of all kinds of proviſions that are ſold in the county are governed. If wheat riſes 2*s.* per quarter at London, it immediately does the ſame at all the markets in the county; and if butchers meat is plentiful, and falls in price in Smithfield, it ſoon lowers in the country markets.

The ſupplies neceſſary for the army and navy, in time of war, muſt contribute to increaſe the demand for proviſions; at the ſame time, two extreme dry ſummers, with one of the ſevereſt winters ever remembered, have contributed to decreaſe the ſupply. The latter cauſes, however, have principally occaſioned the preſent ſcarcity, and conſequent high prices of proviſions. A decreaſed ſupply will always operate in raiſing the price of any commodity; but if to that is added an increaſed demand which muſt be ſupplied, the effect is doubled, and prices riſe in proportion. A medium price can only be found in a juſt balance between ſupply and demand. Since the beginning of this ſurvey, the price of bread is advanced about cent. per cent.; and butchers meat about twenty per cent.

The preſent Prices of Proviſions, December, 1795.

Mutton 6*d.* beef 5½*d.* veal 8*d.* pork 7*d.* bacon 8*d.* butter 12*d.* and good Cheſhire cheeſe 7*d.* per pound, of ſixteen ounces avoirdupois; potatoes 8*s.* to 10*s.* per ſack of nearly 200lb. neat; coals 36*s.* per chaldron of thirty-ſix buſhels; a half peck loaf of beſt wheaten bread, 2*s.*

SECT. III. — *Fuel.*

COALS are brought from Newcaſtle and Sunderland to all the maritime ports of Kent, and from thence are diſtributed to the interior parts, ſeldom exceeding 30*s.* per chaldron in time of peace.

Faggots of wood are found in plenty in the weſtern and middle parts of Kent. The bakers, who formerly heated their ovens with wood, now in many places uſe coals, and, by experience, find it more advantageous: the decreaſed demand for fire-wood, by the new method of heating ovens, is amply compenſated to the growers of wood, by the great conſumption of faggots for burning bricks and lime. Turf and peat are very little uſed. Tanners bark, after infuſion, is dried and formed of a convenient ſize, and becomes an article of fuel in the vicinity of tan-yards. In the eaſtern part of Kent, fire-wood for heating ovens is ſometimes ſo ſcarce, as to ſell from 16*s.* to 20*s.* per hundred of bruſh-faggots; each five feet and a half long, and three feet in girt.

CHAPTER XV.

POLITICAL ECONOMY.

SECT. I.—*Roads.*

THE principal road in this county, is that leading from London to Canterbury, which of late years has been much improved and kept in excellent order by the commiſſioners, who have immenſe ſums at their diſpoſal; and materials are everywhere near at hand: but it is ſomewhat extraordinary, that their power is not extended eaſtward to Deal, where there is ſuch a reſort of ſhipping. I am told, that this ſhort ſpace of ſixteen miles between Canterbury and Deal, is the only part of the road from the Landſend to Deal that is not ſupported by turnpikes. The turnpike roads in other parts, are alſo, in general, very good, except ſome croſs turnpike roads in the Weald, which are as bad as can be imagined; being even impaſſible for coaches or chaiſes very frequently in winter. The money collected at the gates on theſe roads, is barely ſufficient to pay the intereſt of the ſum borrowed; which is an evil that calls aloud for a remedy. The cauſe of the badneſs of theſe roads is a want of materials; the ſoil being a deep ſoft clay, without any mixture of gravel, flints, ſtone, or chalk, or any other good materials within a moderate diſtance.

The cauſe of the evil being thus ſeen, a remedy ſhould be ſought; and what Nature has denied, Art and Induſtry ſhould endeavour to ſupply. Bricks, burnt very hard, would make an excellent road, if laid on green furze, and covered over thinly with gravel. Fields, along the roads where there are no woods, might be ſown with furze, for the purpoſe of burning bricks; and kilns might be erected at proper intervals. Thus the bricks would be made on the ſpot, and brought into uſe at an eaſy expence. Roads thus formed in thoſe parts, would open communications that would probably lead to a variety of improvements.

Three hundred and forty thouſand bricks are ſufficient to pave a mile of road nine feet wide; the expence, therefore, is not very great. Paved roads have been made in Lancaſhire, which coſt from fifteen to twenty hundred pounds per mile.

Where ſurveyors of the highways are attentive to their duty, the common roads are, in general, tolerably good; but I am ſorry to obſerve, that there are a great many pariſhes whoſe roads are much neglected, the full compoſition for the ſtatute duty not being collected, or the duty not performed.

If the full ſtatute duty were performed, or the money ariſing from a full compoſition, were laid out with judgment and œconomy, there are few pariſhes that would ſtand in need of turnpikes, except in the Weald, or other places where there are no materials. But if three days duty only is compounded for, at four ſhillings and ſixpence per day, and that money is injudiciouſly expended, as is too often the caſe, good roads cannot be expected. Upon the whole, the highway act is fully adequate to the purpoſe of making good roads; but the fault is in thoſe who ſhould carry it into execution.

One very great evil in the expenditure of the highway-money is, the laviſhing it in the employment of carts to fetch materials from a great diſtance; when, perhaps, a labourer, with a pick-ax, would find ſufficient on the ſpot for one-fifth of the expence.

SECT. II. — *Canals.*

EXCEPTING the navigation from Maidſtone to Tunbridge, by ſmall barges, and that I believe is not an artificial one, we have no navigable canals. This county being almoſt ſurrounded by the ſea and the Thames, and interſected by the Medway, canals are the leſs neceſſary.

There are, however, many ſituations where navigable canals might eaſily be made, and ſome which would probably prove a ſource of great convenience and wealth to the neighbouring inhabitants and proprietors of eſtates.

Of theſe the river Stour ſeems to be the firſt object, as it certainly might be made navigable to Lenham. By ſuch a navigation the Kentiſh ragſtone would be conveyed to Aſhford, Canterbury, and Sandwich, for paving or building, or for exportation; likewiſe oak-timber might be brought, at an eaſy expence, from the Weald of Kent to the port of Sandwich, for ſhip-building and other purpoſes; ſo might hops, fruit, bark, corn, &c. from the interior of the county to thoſe towns; from whence would be returned coals, and ſuch other goods as are now conveyed at a great expence to thoſe parts by land-carriage.

SECT. III. — *Fairs.*

THE old eſtabliſhed fairs in this county are ſo numerous, that there is hardly any place to be found without one; but they are of trifling import when compared to the great ſtock-fairs of other counties. If, inſtead of ſeveral autumnal ſheep-fairs, now annually held in Eaſt Kent, there were only one, there probably would be more buſineſs done at that than all the reſt; and the eſtabliſhment of a good ſheep-fair, in the ſpring of the year, would be a great convenience to both buyers and ſellers.

In 1792, a wool-fair was propoſed by the worthy Baronet who repreſents the county, to be held at Aſhford; which met with general approbation, and has hitherto been very numerouſly and reſpectably attended; and although not much buſineſs has as yet been done at it, on account of the prejudices of the buyers, who fancy that it is meant as a combination of the ſellers, yet it is preſumed, when thoſe prejudices are done away, this meeting will be found a meaſure of great public utility to all parties concerned. There are conſiderable fairs, for the ſale of fat and lean cattle, at Maidſtone, Aſhford, and other places in the Weald of Kent.

The Kentiſh Almanack mentions the time of holding all the fairs in the county; and Owen's Book of Fairs, thoſe of the whole kingdom.

SECT. IV. — *Weekly Markets.*

ALMOST every town in the county has a weekly market, where every kind of proviſion and vegetables are ſold. The two cities of Canterbury and Rocheſter are well ſupplied by markets, under regulations of the reſpective corporations.

The Market-houſe at Canterbury has lately been rebuilt in an elegant ſtile: to defray the expence of it an additional tax was laid upon butter; which ſo offended the farmers in the neighbourhood, that they entered into an agreement to bring no more to market, but to expoſe it for ſale at a place without the liberties of the city; and inſtead of ſpending the money at the city-ſhops adjoining the market, it was carried away to purchaſe goods at other places. The citizens, finding that their intereſt lay in a free ſale for proviſions of every kind within the city, took off the additional toll.

SECT. V. — *Commerce.*

THE chief part of the agricultural commerce of this county, is that of exporting corn to the London markets; very little is ſent to foreign ports directly from Kent, though much of the Kentiſh corn goes abroad, when corn is exported, from the grand receptacle, Mark-lane market.

At the towns of Maidſtone and Chatham, and all others on the coaſt, there are ſeveral hoys, carrying from three to five hundred quarters of corn each, which are continually going to London with the produce of the land, and returning with grocery, &c. for the ſupply of the country.

The ſoil and climate of this county being better adapted to the growth of corn than of graſs, no cheeſe or butter is made for exportation, nor a ſufficient quantity for the conſumption of the inhabitants; the deficiency, therefore, commerce ſupplies from other parts of the kingdom.

Sect. VI. — *Manufactures.*

The manufactures of this county are very trifling; probably owing to the ſucceſsful attention generally paid to agriculture and grazing. It has been obſerved by ſenſible writers on agriculture, that where manufactures moſt flouriſh, the land is moſt neglected; and this county is an inſtance of the truth of the obſervation. There is hardly any county to be named where agriculture is arrived at ſuch perfection, or where there are ſo few manufactures as in this. There are ſome, however. At Canterbury, ſilk has been manufactured to a conſiderable extent; but it is now giving way to cotton. Much credit is due to Mr. Callaway, for his ſpirited exertions in this branch.

At Dover and Maidſtone are manufactories of paper, of all ſorts. At Stoner, near Sandwich, and the Iſle of Grain, are ſalt-works. At Whitſtable and Deptford are large copperas works; and in the Weald of Kent, bordering on Suſſex, are furnaces for caſting iron.

Gunpowder is made at Deptford and Faverſham; and at Crayford there are large works for printing of callicoes, and the whitening of linens. Sandwich was formerly famous for a particular kind of flannel, and ſome other woollen goods; and the inhabitants were increaſed and enriched by the eſtabliſhment; but the buſineſs has long been driven from thence to the northern counties, by the increaſed price of labour in Kent. An attempt has lately been made, by a ſpirited young man in that town, to carry on an extenſive manufactory in coarſe woollen and linen goods; which promiſes well. Sacking and hop-bagging have always been manufactured in ſufficient quantity for the conſumption of the county.

It ſeems to have been an error in the politics of this country, to have beſtowed ſo much attention to the encouragement of manufactures, in preference to agriculture. Had the ſame encouragement been given by parliament, for the laſt fifty years, to agriculture as we have ſeen given to manufactures, we, probably, by this time might have had many thouſand acres of land, that are now deſolate waſtes, in a high ſtate of cultivation, and covered with a healthy race of inhabitants. The lower claſſes of the people employed in agriculture, are always the moſt healthy, and get the moſt comfortable living; and by their reſidence in the country, at a diſtance from great towns and populous villages, are more out of the way of temptations to vice and idleneſs. Let the cottages of the farmers labourers be examined, and compared with thoſe of the manufacturers in great towns; the former will be found comfortably clad and well-fed, while the latter are often ſtarving in rags and filth.

There can be no doubt but that agriculture and manufactures are mutually dependent on each other; but it muſt be bad policy to encourage any one at the expence of the other.

SECT. VII. — *Poor.*

THE poor of this county are generally well taken care of by the pariſh-officers, and their opulent neighbours. The greater the ſcarcity of proviſions, and the more the appearance of diſtreſs among the poor, the greater is the extent of charitable contributions, over and above what the law provides for maintaining them. The poor laws are ſuch, that no perſon need be in diſtreſs for proviſions, if it be not his own fault. Thoſe who are capable of labour, are ſure to find employment among the farmers; for in an agricultural county like this, workmen are always wanted. It is only in manufacturing counties where there can be any real diſtreſs among the poor. Thoſe who are incapable of labour, the law has amply provided for. The ſober and induſtrious labourer in Kent, unleſs he has a large family, cannot with propriety be called a poor man; becauſe, by his induſtry, he can always procure a comfortable maintenance, equal, if not ſuperior, to the little farmers (uſually called peaſants) of ſome foreign countries; or perhaps to ſome ſmall tenants of this.

SECT. VIII. — *Population.*

I AM ſorry it is not in my power, from the number of my avocations and the length of time this ſurvey has already taken me up, to give to the Honourable Board full ſatisfaction on this ſection.

Mr. Haſted informs us, that by modern calculations, Kent is ſuppoſed to contain 40,000 houſes, inhabited by 200,000 perſons, of whom 60,000 are able-bodied men.

" When the militia was altered to the preſent mode, " the return made from this county of able-bodied men " fit to ſerve in it, was 16,757 in Weſt Kent, and 9,164 in " Eaſt Kent; in all 25,921: according to which, the " proportion of militia-men allotted for this county by " parliament, was, for Weſt Kent, 621; for Eaſt Kent, " including the city of Canterbury, 339; in all 960.

CHAPTER

CHAPTER XVI.

OBSTACLES TO IMPROVEMENT.

THE principal obſtacles to the general improvement of this county, are the payment of tithes in kind, the corn-laws, and the prohibition to export wool in its raw ſtate.

That the payment of tithe in kind does operate againſt improvements is evident, from the immenſe quantity of poor uncultivated land in moſt parts of this county where the tithe is paid, remaining in its barren ſtate; while ſome of the ſame ſort of lands, where farmers happen to have the tithe themſelves, are improved and cultivated to a high ſtate of perfection, and made as productive as ſome of the beſt lands.

The corn and wool-laws were profeſſedly enacted to keep down the price of thoſe articles; if, therefore, they do operate according to their original intention, it needs no argument to prove that they are obſtacles to improvement.

The rights of commonage on the barren heaths of this county, is certainly an obſtacle to their improvement. Short leaſes are likewiſe great obſtacles; no man of common prudence will ſpend much money on his farm to improve it, unleſs he has a ſecurity of reaping the benefit of it himſelf; beſides, if he does ſo, he muſt be aware that he is throwing out a great temptation to an illiberal neighbour to bid for his farm, or to a rapacious landlord, to take advantage of his liberality and induſtry.

Reſpecting the legiſlation and police of corn, I am not competent to give information on theſe heads to the Honourable Board; but it is my humble opinion, that were there no corn laws, there would be a much greater quantity of corn grown; and, if ſo, the markets would be filled, the prices lowered, and, by the increaſe of quantity, the farmers, and ultimately the land-owners, would be enriched. The dread of a low price muſt evidently tend to deter a farmer from cultivating and improving his land with a view to grow more corn; hence the intention of keeping corn low has the effect of raiſing it, by diſcouraging its cultivation. On the other hand, were laws enacted with the intention of making corn dear, in all probability, by the very idea of ſuch a proſpect, cultivation would be ſo much extended, as to make corn plentiful and cheap.

CHAPTER XVII.

MISCELLANEOUS OBSERVATIONS.

SECT. I. — *Agricultural Societies.*

IN January 1793, a Society for the encouragement of Agriculture and Induſtry, was eſtabliſhed at Canterbury, under the patronage of Sir Edward Knatchbull, Bart. and Filmer Honeywood, Eſq. the members for the county.

Officers for this Society are annually elected; and thoſe for the preſent year 1795, are,

PRESIDENT.

SIR JOHN HONEYWOOD, Bart. M. P.

DEPUTY PRESIDENT.

Henry Godfrey Fauſſet, Eſq.

STEWARDS.

James Tillard, Eſq.
Mr. John Boys.

TREASURER AND SECRETARY.

Mr. John Jacob.

A committee, conſiſting of twenty-four members; twelve of which are annually nominated in the following manner:

The Preſident firſt appoints a new member; then the perſon ſo appointed nominates one of the old committee, who mentions a new one; which goes on alternately till twenty-four are appointed.

A Sketch of the Kent Agricultural Society, as publiſhed by the Society.

"The advantages that the puplic are likely to receive from the inſtitution of Societies for encouraging Agriculture and Induſtry, and the benefits that have accrued to thoſe parts of the kingdom in particular where they have been already formed, firſt gave riſe to the idea of the eſtabliſhment of one in this county. To ſhew the utility of ſuch an inſtitution, it will be neceſſary only to ſtate what are the CHIEF OBJECTS OF ITS ATTENTION.

"To excite by premiums, and otherwiſe, a ſpirit of emulation among the ploughmen:

"To encourage a ſpirit of induſtry among the labourers:

"To reward the labour and induſtry of thoſe poor labourers and cottagers who ſhall breed up, or have bred up, the greateſt number of legitimate children, either without any or with the ſmalleſt relief from their reſpective pariſhes:

"To encourage diligence and induſtry in ſervants, of both ſexes, employed in huſbandry:

"To promote the knowledge of agriculture, by encouraging experiments on thoſe ſubjects which are of the moſt importance to it; by diſtributing rewards to ſuch perſons as ſhall raiſe the largeſt and beſt crops of natural and artificial graſſes, and the ſeveral ſorts of grain, on any given quantity of ground; the nature of the ſoil being taken into conſideration:

"To encourage the improvement of waſte lands, by incloſing, draining, manuring, raiſing plantations; and by the introduction of vegetable food for cattle:

"To encourage the improvement of the breed of all ſorts of live ſtock, and to provide for their health better than has been hitherto done:

"To promote all improvements in the various implements belonging to the farmer, and to introduce ſuch new ones as the experience of other counties has proved more valuable than thoſe now generally uſed in this.

"And as there is hardly any object of rational improvements which may not be brought within the influence of ſuch inſtitutions, by a proper diſtribution of premiums, the attention of the Society will always be directed, in proportion to the ſupport it ſhall receive, to every thing that may hereafter appear moſt likely to conduce to the proſperity of this county in particular, and to the good of the community at large.

"As it is the wiſh of this Society, that its utility ſhould become as extenſive as poſſible, it is earneſtly requeſted that all perſons who approve of the inſtitution will give it their ſupport. Subſcriptions may be paid into the hands of the Treaſurer, or into either of the three Canterbury banks; or into the banks of Meſſrs. Brenchley and Co. Maidſtone, and Meſſrs. Day and Co. Rocheſter."

The rules and regulations for the government of this Society are well-drawn up; and its finances are at preſent in a flouriſhing ſtate. A great many ſervants and labourers have received the Society's premiums for long and faithful ſervices, and for bringing up large families. Among other premiums, is one of 10*l.* 10*s.* for a double turn-wreſt plough.

Books of the tranſactions of this Society are to be had at the printing-office, Canterbury, price 6*d*.

Some years ſince, a ſociety was eſtabliſhed at Maidſtone, called the Kentiſh Society, for promoting every branch of uſeful knowledge through the county of Kent. This was begun under the patronage and ſupport of the late Lord Romney, the Earl of Stanhope, and the preſent Lord Romney, then the Honourable Charles Marſham. Whether it was by aiming at too much, or from a want of ſupport in ſubſcriptions, that it fell to the ground, I am not competent to ſay.

About a year ago, an attempt was made to eſtabliſh another ſociety at Maidſtone, upon leſs general principles; but joining ſome other ſciences with Agriculture. There was a great number of the names of the firſt of the nobility, gentry, and yeomanry, who, by public advertiſement, called meetings at Maidſtone, in order to ſettle the buſineſs; but either from want of a full attendance, or of ſubſcriptions, their efforts were not attended with the deſired ſucceſs.

SECT. II. — *Weights and Meaſures.*

THE difference of the weights and meaſures, is an evil in trade and agriculture that moſt certainly requires a remedy, though the evil is much leſs in Kent than in many other counties. The pound weight is the avoirdupois, of ſixteen ounces; and the ſtone of meat, eight pounds at ſome places; and at others, fourteen pounds. Moſt heavy goods are ſold by the ton, conſiſting of twenty hundred weight, each of 112 pounds.

Since the late determination in the Court of King's Bench reſpecting the meaſure of corn, all local meaſures have been aboliſhed, excepting the ſtandard Wincheſter buſhel, which contains 2150,4 cubic inches. Before that determination, we had three different ſized buſhels in the town of Sandwich (viz.) eight gallons and a quarter the country meaſure; eight and an eighth the town meaſure; and eight gallons the London, or Wincheſter meaſure. In ſome parts of the county, the buſhel contained eight gallons and a half; in others, eight and three-fourths; in ſome places nine gallons: and in moſt of the eaſtern parts of the county, twenty-one quarters were allowed to the ſcore, meaſured with a large buſhel.

The rod is five yards and a half, or ſixteen feet and a half; and the acre, the true ſtatute meaſure of 160 rods or perches.

Corn is now invariably ſold by the quarter, conſiſting of eight Wincheſter buſhels. Hay, ſtraw, and hops, by the ton. Apples and potatoes by the ſack, of about three buſhels and a half, and ſometimes by the ſieve, a baſket containing about a buſhel.

Butchers meat is uſually ſold in Eaſt Kent by the ſcore pounds, and in Weſt Kent by the ſtone.

CONCLUSION.

Means of Improvement, and the Meaſures calculated for that Purpoſe.

A FAIR commutation for tithe is the meaſure beſt calculated for the improvement of this county.

This would be a ſpur to invention and induſtry, and lay a foundation for a variety of improvements, eſpecially in poor barren diſtricts.

There is a great deal of poor land that requires as much money to be ſpent in bringing it to its utmoſt ſtate of improvement, as will purchaſe the fee-ſimple of it.

But there are very few farmers who will do that, with the proſpect before them of another perſon's enjoying the tenth of the produce.

Waſte Lands. There is ſcarcely an acre of land to be found in this county, but what might be converted to ſome valuable purpoſe.

The gravelly and ſandy heaths, when once put into ſeveralty and properly cultivated, would produce good turnips, ſeeds, and corn.

The cold clays and wet commons, no doubt, would likewiſe produce good corn, or make incloſed meadows or paſtures.

Draining. The bogs of this county are but few in number, and ſmall in extent: but, whatever the quantity,

tity, they might certainly, at a very ſmall expence, be made at leaſt of ſix times their preſent value. In the middle and weſtern part of Kent, there is a great number of ſmall vales of marſh-land liable to be flooded in the winter; which might be effectually drained at little expence, were they under a commiſſion of ſewers, with proper powers.

In other parts of the county, there are very extenſive tracts of marſh-land often entirely under water for many weeks together, to the great loſs of individuals and the public. This is an evil which certainly can, and ought to be remedied.

Every mechanical contrivance that tends to leſſen the labour of the huſbandman and his expence, may be juſtly reckoned an improvement. Under this head, the new invented thraſhing-mills are of the firſt importance.

There are many ſituations in this county where a ſmall rill of water runs by a farm-yard, with a ſufficient fall to turn a water wheel. Wherever farms are thus fortunately circumſtanced, the expence of thraſhing out corn may be reduced full one half; and the labourers, who otherwiſe would be conſtantly in the barn, by this means, may be ſpared for carrying on improvements in manuring, draining, and various operations in huſbandry: ſo that, although the labourer may be deprived in one inſtance of his employment, he is amply recompenſed in the other; for employment accumulates with improvement.

Theſe appear to me to be the principal means of improvement, and are ſuch as will probably introduce many others. Thus a commutation for tithe, and the cultivation of the waſte lands, would produce turnips, clover, mutton, and wool, where thoſe articles have never before been raiſed. In theſe productions, a foundation would be laid for the cultivation of corn, to feed the human and animal ſpecies, and for the employment of manufacturers.

Hence would ſpring a reciprocation of intereſts to the farmer and manufacturer, and an accumulation of benefits to mankind in general.

APPENDIX.

APPENDIX.

A Note on Hops, by a Gentleman ſtiling himſelf a Middle Kent Farmer; inſerted in the Margin of the Original Printed Manuſcript, circulated for Remarks and Obſervations by the Board of Agriculture.

THE author of theſe pages, an Eaſt Kent * corn-farmer, appears to write in a moſt ſenſible judicious manner on ſubjects falling within his immediate obſervation.

On the plantations of the middle of Kent, and reſident as he has been forty miles from them, he has had very little opportunity of informing himſelf; for can it be ſuppoſed a ſtranger who comes into a town for a very few days, which I learn from the parties he quotes for his information, was the caſe, ſhould procure ſufficient (at beſt at ſecond hand) information to write ſo fully or ſo correctly, as the large and very populous diſtrict I quote, well known under the appellation of Middle of Kent, ought in juſtice to have; and in which the largeſt capital, in proportion to its extent, is employed in agriculture, perhaps of any part of England of a ſimilar ſize, and conſidering it is almoſt without manufactures as populous in proportion. I was informed by one of the parties he went to aſk information from, previous to this Work making its appearance, that he came very much prejudiced in favour of the part of the county he came from; and I was, in ſome meaſure, prepared for rather a partiality, which it is natural for us all to carry about us for our native ſpot; nevertheleſs, I did not expect, by much the largeſt plantation of England †, and the original ſpot from whence the hops were diſperſed to other parts of it, ſhould have paſſed off with only five and a half ſhort lines, in which the whole growths are condemned in a lump in the words of Mr. Boys. "This plantation ſome years grows great crops of hops; but the quality of them is much inferior to thoſe of Canterbury and Eaſt Kent."—In reply to this, I doubt not but he will find, from the kindlineſs of the land generally to the growth of hops, that on an average of all years, and particularly of the difficult ones, Middle Kent exceeds in quantity thoſe of Canterbury and Eaſt Kent: and as to quality, on the generality of good grounds, they cannot be exceeded by any growing in England. Real judges of hops allow it. And the largeſt growths round Maidſtone, from the following places, Linton, Looſe, Otham, Eaſt and Weſt Farley, Wateringbury, Teſton, Eaſt and Weſt Peckham, Maidſtone, Eaſt and Weſt Sutton, Yalding, Hunton, Boughton, Malling, and many other places, where the ſoils are rocky, are principally conſumed by the London brewers; not but that there muſt be ſituations where, in ſo very large an extent, hops are planted of a very coarſe ſort, becauſe no others will grow; but they are eaſily diſtinguiſhed by the moſt common obſerver, by the largeneſs, coarſeneſs, and harſhneſs of the leaf and feel; and they want condition, the moſt valuable quality. But becauſe in the outſkirts ſuch grow, and in ſituations where no hops ought to be planted, are all the hops growing in the heart of the county to be condemned for it, and included in a general cenſure, and only the ſpot where Mr. Boys is a very ſmall grower ‡, hops are to be found that are good? Is there not a ſimilar difference in the quality of Eaſt Kent hops?

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* The Editor has been a hop-planter upwards of twenty years, the greater part of the time on a large ſcale, and he has often had opportunities of ſeeing the Middle Kent plantations. His enquiries at Maidſtone confirmed him in the ſentiments he has expreſſed in this report.

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† The Canterbury collection of duty takes in a very large proportion of the grounds cloſe to Maidſtone.

I am well aware that Farnham, in Surrey, may be urged as an inſtance againſt the Kent hops being equal to any, on account of the very ſuperior prices they ſell at. But until the conſumers generally become judges of the quality of hops, I do not admit the price at market of particular growth to determine the quality. Perhaps the quality of no article is ſo little known by the conſumer as that of hops. The colour being a clear bright green, or the nearer it approaches to it, and their being clear of the large green leaves and ſtrigs, which are apt to drop in while picking the hops, together with a handſomely ornamented thin covering of cloth, are the criterions for a good price at a country market, and particularly for the conſumption of the weſtern counties, where Farnham hops principally are ſold for very high prices.

Now, my opinion of the quality that hops ought to poſſeſs, are theſe: 1ſt. They ought to be ripe before they are gathered; and in getting ſo, they paſs from a green to a rich yellow colour. 2dly. They ought to grow on a ſoil that, inſtead of enlarging the ſize of the hop and ſtrig, grows them full of farina (provincially, condition). 3dly. They ought to be very thoroughly, but ſlowly dried, and then be packed for market in the thickeſt covering that can be found, as that preſerves their ſtrength. The colour of thoſe hops that hang till they are ripe, can never be ſo beautiful as if they were gathered green; for they are generally bruiſed by the wind at the equinox, the time of their ripening. But the quality of their bitter is ſuperior in flavour, goes farther, and will never deceive in brewing, like the early-gathered ones, keeping good if home dried provincially, or full dried for years. In all theſe qualities, the Middle Kent hops are not exceeded by any §. Yet it is the practice of Middle Kent, the inhabitants not being ſufficient by three-fourths to gather in the crop of hops, to employ people coming from London (on account of the great extent of their plantation) who do not pick them quite ſo free of the very fine green ſmall leaves growing on the bine with the hops as they do at Farnham, or indeed, as ſome are in Eaſt Kent. Yet thoſe ſmall leaves do not prejudice the quality of the bitter; and if they do no other good, they ſhew the manner in which the hops have been dried to the buyer, from their conſequent clear or muddy colour; and are a guide in that very important property of the hop, and are ſo far of ſervice. But where this is carried to an extreme, as I have ſeen it done in both Eaſt and Middle Kent, it becomes a fault.

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‡ He has about twenty acres. *Editor.*

Another Note, by the ſame Gentleman.

A corn-farmer coming from ſuch a fertile ſpot as the low rich lands of Eaſt Kent, with inexhauſtible ſupplies of rich manure furniſhed by the ſea ||, and without any part of the farm robbing the reſt, as is the caſe with all hop-farms, ſhould be reminded, that the principal farms

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§ Eaſt Kent hops generally ſell for moſt money. *Editor.*

|| He lives on high chalky hills, at too great a diſtance from the ſea, to get any of the ſupplies of manure alluded to. *Editor.*

of Middle Kent are hop-farms; and corn makes only a ſecondary conſideration with them †.

In favour of our farmers and ſoil, it may with juſtice be urged, that, when our corn-land is robbed of its proper return of manure by our hop-grounds; and theirs, on the contrary, has the whole of what is made from it, and one-third on the average added to it from the ſea, I truſt that what Mr. Boys, who is unacquainted with our ſtile of farming, may on a ſuperficial view think negligence or want of ſkill, will be more rightly placed to the want of manure to ſupply the waſte our hop-grounds make, by returning no manure back again. An acre of hop-ground requires twenty good ſized cart-loads of well mixed and rotted dung and mould annually. Allowance may therefore, with propriety, be claimed for the corn and meadow-lands bearing leſs luxuriant crops than the ſoil and ſame management under different circumſtances would do. When it is conſidered that one-tenth, and with many one-fifth, of a farm is under hops, as well as the conſumption of dung with it, will not the high ſtate of cultivation of Middle Kent appear extraordinary? For certain it is, that the greateſt exertions (without a regard to expence) are made to replace the waſte of manure, as well as to render all the crops productive. In conſequence, the very conſiderable expenditure of our farms in labour, &c. has occaſioned this diſtrict to be the moſt populous of any other part of the county, or perhaps of England, where there are no manufactures carried on.

A farm that has twenty-one acres of hops, requires ſeven hop-ground men, at leaſt, to look after it; but two and a half acres of hops to one labourer on a farm, is as much as he will well manage; and for the moſt part, they are employed the year round.

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† This is more a condemnation of the huſbandry than a proof of its ſuperiority; becauſe, confeſſedly, the corn-land is ſacrificed to the hop-grounds. *Editor.*

A Deſcription of the Soil in the Iſle of Shepey, with Improvements that may be made upon the Arable Lands there, ſubmitted by W. FAIRMAN.

THE ſoil of the uplands in general is, as Mr. Boys obſerves, a very ſtiff and wet clay; and that of the low marſh-land only differs from it in having a mixture of ſhells and ſea-ſand, which makes it ſufficiently porous, and of courſe, ſound and dry.

The ſyſtem of managing the arable part of the uplands is in general vague and indefenſible; yet there are ſome farmers whoſe practice is worthy both of notice and imitation.

The misfortune is here, as in all ſoils of a wet and cloſe texture, that the farmer has to expect but a ſhort time in the ſpring and autumn for the cultivation of his land; and he muſt be ſubject to much inconvenience from the want of a variety of ſoil, as it is hardly poſſible to find employment for his men and horſes one half of their time *; and a great ſtrength muſt neceſſarily be kept to avail himſelf of a favourable opportunity when it offers. Soils ſimilar to theſe uplands will abſorb a prodigious quantity of water; which they will retain till the ſun and winds evaporate it, and from that ſtate they haſtily become cruſted; and here it is, in my opinion, that the ſkill of the moſt aſſiduous farmer is baffled; the contraction of the ſurface, moſt certainly is injurious to vegetation; and to prevent it, great efforts ſhould be uſed.

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* They might get ſea-ſand and ſhells for manure. *Editor.*

Why do they find the natural graſs come beſt in their wheat ſtubble? Why ſo ſeldom fail of a good crop of wheat and beans, where an early ſeaſon is obtained? And why do they ſucceed ſo well after a ſevere froſty winter, where a good plant is preſerved? The reaſon to me is obvious, that an aſhy or duſty ſurface is obtained, which repels and prevents the penetration of the ſun and winds; and inſtead of every limb of vegetation being torn off by the contraction of the ſoil, the plants are nouriſhed and become vigorous, by the progreſs they make in the horizontal poſition; and the fibrous roots, from running through a ſoil in that ſtate, become elaſtic, and expand with greater powers. To get land into this ſtate ſhould be the grand object; and to attain it, I ſhall beg leave to ſubmit my obſervations to that effect, under three heads, viz.

1ſt. Early ſowing.

2dly. Land draining.

3dly, and laſtly. Proper materials for altering the texture of the ſoil.

I. Early ploughing for the wheat-ſeaſon, whilſt the land is in a dry ſtate, muſt be of infinite uſe; and the land that is intended for the ſpring-corn, for the ſame reaſon, ought to be ploughed as early as poſſible, that it may lie rough through the winter for the froſt to have the greater power over it; the farmer will then get a good ſeaſon, if he will wait; and he need not fear a ſevere drought, as the land in that ſtate will always retain the moiſture. I do not pretend to advance, that late ploughing will never ſucceed; I have ſeen the reverſe, though the chance is ten to one againſt ſuch practice; but when it has proved fortunate, a very dry time has ſet in, followed by a deluge of rain ſufficient to wet a clod through of an hundred weight: for ſeveral years back, a clod of half that ſize might have remained the whole ſummer perfectly dry within ſide, and of courſe too ſtubborn to be broken by common workmanſhip: a ſeaſon in this caſe muſt be loſt. Summer-fallowing muſt be of infinite uſe to clean and pulverize the land, and to receive ſuch compoſt, and manure, as may be thought beſt to dreſs it with.

II. Land-draining, which is of great importance on ſoils ſo very wet and tenacious as that of the uplands in this iſland; and every field lying with ſome declivity, is well ſituated for ſuch improvement. Surface-draining has been much practiſed; but I have ſeen it hurtful, from the method ſome farmers have purſued, by drawing the furrows directly down the declivities; the water, by that method, gains too much force, and waſhes away the earth from the roots of the plants, which occaſions the corn and graſs to turn yellow. It is certainly found to be the beſt method to plough fields of this deſcription the contrary way, and to lay the land in ſmall ridges to catch the water, that it may be conducted down the field by frequent large drains, acroſs the furrows, at leaſt fifteen inches in depth. I muſt confeſs, I am a greater advocate for under-draining, notwithſtanding it is done at a conſiderable expence, as it is the moſt effectual, and will be in the end the cheapeſt; for it will laſt, if done with wood in a proper manner, twenty years; and if done with ſtone, I may ſay for ever. It is but right that I ſhould explain myſelf for being ſo very partial to under-draining. Where draining is neceſſary, the pores of the earth are evidently obſtructed; and I am perſuaded the obſtruction is principally in the ſecond ſtratum of the earth, or what

Mr. Boys very properly terms the ſubſoil; and, from ſome obſervations, I am poſitive in my opinion. It is very common to ſee the water ſtand on ploughed land where the furrows are quite open to the bottom; and by digging a hole about the ſize of a half hogſhead barrel, I have ſeen it taken off to a good effect; and inſtances too are perpetually occurring of depthening ponds that will not hold water afterwards.

III. Proper materials for dreſſing and altering the texture of the ſoil.

In the article of manure, Mr. Boys very properly takes notice, that the ſea furniſhes an inexhauſtible ſupply of ſand and ſhells, called Sea-ſhingle, that greatly improves arable land. To prove their uſe, I will attempt it by compariſon. Strange as it may appear, it is very evident that all the low flat marſh-land in this iſland, ſuppoſed originally to be the ſediment of the ſea, is never too wet, notwithſtanding the ſoil is ſtiff; and the inſtant you aſcend the uplands they are found ſoft and wet in the winter ſeaſon; and a horſe would ſink over his paſterns, when not fifty yards below, the print of his ſhoe would ſcarcely be ſeen. The land that is thus affected loſes full half its value: This wonderful circumſtance of the loweſt land being the moſt dry, I attribute to a portion of ſhingle or ſea-ſand, as I firſt mentioned in my deſcription of the ſoil, depoſited by the ſea, and occaſioning the neceſſary filtration of the water through the ſoil.

I have only to add to the foregoing obſervations, that under-draining, and manuring with ſea-ſhingle, appear to be the moſt rational and adviſeable methods to improve the uplands of this iſland: and I recommend, as an experiment, under-draining with ſhells only.

Having mentioned to Sir John Sinclair, an idea I had long entertained, that vegetables dried on a kiln might be rendered uſeful to ſailors in long voyages, he directed me to procure ſome potatoes, and dry them on his account: I accordingly purchaſed four ſacks, which I dried on a common hop-oaſt, and ſent them to him in March laſt, with the account in a letter, as under.

Sir,

In two matted parcels, by the Endeavour Sandwich Hoy, I have ſent you the produce of four ſacks of potatoes, after being kiln dried.

The expence and weight of them, before and after drying, are incloſed.

I got the potatoes pared, and have dried the whole, that you may ſee the effect, and try what experiments with them you may think proper; and I have had twenty-eight pounds of the white ſort ground; the meal of which is ſent in the parcel to which it belongs.

I think the expence of drying would have been leſs, if the quantity had been greater, becauſe the oaſt-cloth was not ſufficiently covered to prevent the heat eſcaping too faſt. I found it very difficult to get the thermometer up to 104. On account of the ſmall quantity to dry, I uſed my leaſt kiln, which is an oven-oaſt; by which the colour of the potatoes is more yellow than it would have been if dried on a cockle.

I beg leave to recommend to you to ſend a ſmall caſk of them a long ſea voyage, to be returned to you, that you may ſee how they keep, and what uſe may be made of them on their return. I have long been of the opinion that all kinds of vegetables might be thus dried for the uſe of ſailors.

I have the honour to be,

Sir,

Your moſt humble Servant,

Betſhanger,
March, 20, 1795.

J. BOYS.

EXPENCE.

	£.	s.	d.
2 Sacks of White Potatoes, at 10*s.* 6*d.*	1	1	0
2 Sacks of Early Brown ditto	1	1	0
Two men, three hours each, waſhing them	0	1	0
A man attending oaſt, and drying, two nights and one day	0	4	0
Two buſhels of cinders	0	2	2
Two buſhels and a half of Welch coals	0	4	4½
Seven women, a day and a quarter each, paring and ſlicing them, at 9*d.* per day	0	6	8
	3	0	3¼

Linen bags, mats, &c. as package, no part of the expence.

Weight before and after drying.

	cwt.	qr.	lb.		Qrs.	lb.
2 Sacks, white potatoes nt. wt.	3	0	19	dry beſt	2	9
				parings	0	19½
2 Sacks, Early Brown	3	0	10	dry beſt	2	12
				parings	0	21¼

The four ſacks of potatoes were well ſcowered with a broom in tubs of water, and then, by women, pared and cut in ſlices, about one-fifth of an inch in thickneſs;

which were laid on a ſmall oaſt, about twelve feet ſquare: when thoroughly dried, they became extremely brittle, and were eaſily ground to meal between a pair of corn-ſtones.

As potatoes may be thus dried in ſlices, if well waſhed with the rind on, the expence of paring might be ſaved; and the ſlicing might be done by an inſtrument; ſo that the whole expence, when potatoes are at 10*s.* 6*d.* per ſack, would be only about 36*s.* per hundred weight when dried.

The expence of waſhing, ſlicing, and drying, if the ſlicing were done by an inſtrument, it ſeems by this account, would be about 9*s.* per cwt. on the dried ſubſtance; and it would be conſiderably leſs if a large quantity were done at one time. It may be thought, that even that expence is too great; but if it ſhould be found that potatoes, or other vegetables, can be dried ſo as to preſerve their nutritive qualities in long voyages, the expence in ſuch caſe will be no object.

The following is a Copy of Correſpondence on this Subject, between the Honourable Board of Agriculture and Victualling Office, &c.

To T. M. Ruſſel, Eſq. Captain of his Majeſty's Ship St. Albans.

SIR, *Victualling Office, 8th July,* 1795.

THE Board of Agriculture having, through their Preſident, Sir John Sinclair, ſent to this Board a ſmall quantity of potatoes ſliced and dried, and of ſome meal ground from them, prepared by a Mr. Boys of Betſhanger, in Kent; and conceiving this method of curing that root may prove to be a valuable diſcovery on board ſhips, requeſted that a part thereof might be furniſhed to ſome ſhip going on a long voyage, in order to aſcertain whether potatoes in the before-mentioned ſtate will keep on ſhip-board, and particularly in hot climates, without being attacked with weevils or other inſects,—we beg leave to inform you, that, being at all times deſirous of promoting any diſcovery that may have a tendency to benefit his Majeſty's ſervice, we have ordered two kegs, the one containing a proportion of the dried ſlices, and the other of the meal, to be ſent to our Agent at Portſmouth, with directions for his putting them, with your permiſſion, on board his Majeſty's ſhip St. Albans, under your command; and we have therefore to requeſt you will be pleaſed, in due ſeaſon, to cauſe the kegs to be opened, and to report to us the ſtate of preſervation in which you ſhall find the potatoes ſo cured to have kept, that we may communicate the ſame to the Board of Agriculture.

We are, Sir,

Your moſt humble Servants,

G. Cherry, F. J. Hartwell, F. Stephens,
R. S. Moody, J. Hunt, W. Boſcawen,
(Copy) *W. Goſling.*

St. Albans, St. Helens, 18*th December,* 1795.

GENTLEMEN,

IN obedience to your direction, I have at different periods, and in the different climates to St. Helena, and back again, inſpected into the ſtate of the prepared potatoes; and beg leave to give it as my very humble opinion, that both the ſliced and the meal retain all the eſſential qualities of the potatoe, unimpaired, although

though ſomewhat altered in colour. They are now lodged in your office at Portſmouth, with my advice to your Agent to forward them to your Board.

I am, with great reſpect,
Gentlemen, your obedient
and very humble Servant,

T. M. Ruſſel.

Examined, W. W. (Copy) *W. Goſling.*
Commiſſioners Victualling.

To Sir John Sinclair, Baronet.

Sir, *Victualling Office, 9th January,* 1796.

Agreeably to the letter we had the honour of addreſſing to you on the 1ſt of July laſt, in return to yours to our Chairman, dated the 27th of the preceding month, we beg leave to acquaint you, that we cauſed a part of the potatoes, ſliced and dried, and of the potatoe-meal, which had been prepared by Mr. Boys of Betſhanger in Kent, and which we received from you through our Chairman, to be forwarded to his Excellency Governor Hunter, at New South Wales; and the remainder, contained in two ſmall kegs, to be put on board his Majeſty's ſhip St. Albans, bound to St. Helena, under the command of Captain J. M. Ruſſell; each of whom we requeſted would, in due ſeaſon, inſpect into the ſtate of preſervation in which ſuch potatoes and potatoe-meal ſhould be found to have kept, and to report the ſame to us.

Captain Ruſſell has in conſequence informed us by his letter, dated the 18th of December laſt, that he had at different periods, and in the different climates to and from St. Helena, inſpected into the ſtate of the potatoes ſo prepared, which had been put under his charge; and is of opinion, that both the ſliced and the meal, retain all the eſſential qualities of the potatoe unimpaired, although ſomewhat altered in colour; and he having alſo returned the ſaid kegs to us, we herewith tranſmit to you copies of the letter we wrote to him, and of the report he has made thereupon; together with the kegs, containing the remainder of the potatoes and meal for your inſpection.

We beg to add, that as ſoon as we receive Governor Hunter's Report upon the ſubject, the ſame ſhall be tranſmitted to you.

We have the honour to be,

Sir, your moſt obedient

humble Servants,

G. Cherry, F. Stephens, G. P. Towry,
R. S. Moody, J. Hunt, W. Boſcawen.

Examined. (Copy)

The Editor is favoured with the following, by a Gentleman of the Faculty in Eaſt Kent.

THE diſorder, called *blowing* in cattle, is a ſpecies of colic, ariſing from an over-diſtention of the firſt ſtomach with air. In this ſtomach the food is only ſlightly macerated; during which proceſs, a gentle fermentation takes place, and at the ſame time a quantity of fixed air is generated. When this air is in a moderate quantity, it helps to throw up the cud; firſt, by gently diſtending the ſtomach, it forces it to contract: the air then riſes into the mouth, and carries with it ſome of the food, thus partly digeſted, to be maſticated afreſh.

If an animal of this kind eats too greedily of very ſucculent food, fermentation takes place ſo rapidly, and the ſtomach becomes ſo much diſtended, that it loſes the power of contracting; conſequently, the cud cannot be forced into the mouth; the ſtomach becomes more and more diſtended; by which means the orifices become entirely ſhut up, and, unleſs ſoon remedied, the animal dies.

To cure this complaint, two things are required; to ſtimulate the ſtomach, and to check the fermentation. The following I think likely to anſwer both purpoſes:

Lime-water, a gallon; ginger, in powder, an ounce; opium, half a dram; gin or brandy, a pint. Digeſt all together, and keep in a bottle well corked.—A ſheep may take a quarter of a pint every hour; a bullock a quart, in the ſame manner. I prefer lime-water for the menſtruum, becauſe it will abſorb much more than its own bulk of air; conſequently, it will not increaſe the diſtention of the ſtomach.

If any kind of drink is required, or is in the leaſt admiſſible, lime-water is proper.

Abſtract from the Orchardiſt:

Drawn up at the Deſire of the Board of Agriculture, 1796.

THE ORCHARDIST.

THE orchards of the kingdom are a material branch of its agriculture; and it is expected the ſtandard fruit-trees will ſoon be much improved, from the exertions of THOMAS SKIP DYOT BUCKNALL, Eſq. who has been very aſſiduous in eſtabliſhing the ſcience of Orcharding, as patronized by the Society for the Encouragement of Arts, Manufactures, and Commerce, and publiſhed in the 11th, 12th, and 13th volumes of their valuable Tranſactions, conformable to the practice introduced at Sittingbourne, in the county of Kent, in the year 1790.

In thoſe books, not only what ought to be done, is fully pointed out, but many uſeful hints are given to *guard* the planters and fruit-growers againſt the uſual effects of neglect and miſtakes, both in the trees and their culture.

There are alſo obſervations on the ſuitable manures; and great ſtreſs is laid upon proper ſoil, poſition, and judicious

SHELTER.

The Author's expreſs wiſh, in each publication, *tends* to make moſt trees in an orchard

HEALTHY,

Large, Handſome, and Productive.

The operation is properly called the Syſtem of Cloſe Pruning and Medication; as the governing principles for eſtabliſhment of health begin by cutting cloſe, making the trees perfectly clean, and deſtroying the numerous inſects, vermin, and microſcopic creatures that make ſuch great havock on fruit-trees, by conſtantly eating and fretting the tender bark, which prevent the wounds from healing.

He maintains, that the baneful effects of canker may in part be prevented in the more delicate fruit-trees; as the firſt cauſe of canker ariſes from an *animalcule* ſomething like the cochineal fly, and which is effectually deſtroyed by the medication: and the medication will, in great meaſure, ſtop the oozing of gum in the ſeveral ſpecies of cherries, and other ſtone-fruits. Further he obſerves, inſects are great depredators on the delicate fruit-trees, by eating off the bloſſoms and leaves in the ſpring.

The Orchardiſt, by a little attention, for there is no myſtery, may nearly guard againſt the reſpective evils affecting the trees; and the whole ſyſtem is grounded upon the regular operations of nature in the productions of vegetation; the working, or laborious part, is expreſſed in ſo clear and conciſe a manner, that it can hardly be miſunderſtood; many of the thoughts are new, and the whole proceſs well worthy the attention of the reſpective fruit-growers. Do not look for perfection; it is ſufficient to come near it.

The Society has fully ſanctioned the name of Orchardiſt, in page 211 of the 12th volume; and the author has advanced as an incentive, to induce every one to be careful in the culture of their trees, that he entertains no doubt, but by eaſy means after ten years, the improved

proved value of the orchards and ſtandard fruit-gardens throughout the kingdom, muſt amount to an increaſed product beyond what they yield, at preſent of more than three hundred thouſand pounds per annum; which moſt aſſuredly muſt be ranked as a national object.

The reader, in looking over the before-mentioned Tranſactions, ſhould examine a ſhort ſentence in each of the prefaces; the index will point him out the other parts. The planter is referred to the 12th volume and continuations, with the propoſed premiums, claſs 74, 75, 76, from page 22 to the bottom of page 25, in the 13th volume; but leſt the books ſhould not be at hand, a copy is annexed, ſhewing how the trees ought to be prepared for planting. According to the author's opinion, great part of the trouble and expence of pruning would be ſaved, if the heads of the trees were but looked to in time; and he expreſſes it thus:

Page 213. "The prevention of a diſeaſe is preferable to a cure, therefore, if poſſible, chuſe the trees the year before they are to be planted, and ſee that they are properly pruned in the nurſery, by taking off, perfectly cloſe, all rambling and unſightly branches, leaving the heads to three or four good leading ſhoots. From this forecaſt, the trees will not require pruning for ſome time; and having no wounds to heal, the year they are tranſplanted, will greatly accelerate their growth. Be ſure the trees are young; and do not plant any galled, fretted, or cankered plants.

"Alſo guard againſt planting too deep; and when the trees are taken up, keep the roots as long as is convenient, which will give them a diſpoſition to run horizontal; from which, the roots being more under

" the influence of the ſun, the ſap is richer, and pro-
" duces the ſweeteſt faireſt fruit.

" Chuſe the ground carefully, &c. Here landlord,
" tenant, and workman, ſhould look to planting as
" expreſſed in the Tranſactions, and obſerve poſition;
" determining to eſtabliſh ſhelter on the three cold ſides
" of the freeſt growing trees which the country pro-
" duces; which will much contribute to keep off the
" blights, and protect the fruit from the ſeverity of the
" winds in autumn, when often half the crop of fruit is
" thrown from the trees before it is ripe.

" All over redundant wood ſhould be taken off, that
" the tree may have an uniform head; and the more the
" range of branches ſhoot circularly, a little inclining
" upwards, the more equally will the ſap be diſtributed,
" and the better will the tree bear. Alſo keep the bran-
" ches clear; for ſunſhine and ſhade are unalterably the
" cauſe of ſweet and ſour fruits.

" It is perfectly within the nurſeryman's art to pro-
" duce all his ſtandard fruit-bearing trees, with ſtems
" large and ſmooth, buds full and round, leaves broad
" and open, without the tree being much diſpoſed to
" canker or gum; and this is given as the character of
" a valuable tree."

For this, and Moſs, ſee page 167, in the 13th volume; and a hint is given to " deſire the nurſeryman to be at-
" tentive in his *grafts*; for more depends upon it than is
" imagined; as from the graft being full, well wooded,
" clear, and properly choſen, the fruit will be both
" larger and higher flavoured, though the ſoil and cul-
" ture may be the ſame. Alſo, the health of the *wood* of
" the tree is moſt materially affected during the whole
" time

“ time of the tree's exiſtence, by the proper maturity “ the ſcion was in at the time it was firſt entered into the “ ſtock.”

In page 270, is an abſtract of the working, or laborious part, that it may be ſeen at one point of view: and let it be remembered, if the tree is well pruned, it continues of the ſame ſize after the pruning is finiſhed, as it was before; “ for the rule is, to keep the branches out of the “ reach of cattle, then let them follow their natural “ growth; for each ſpecies has a growth peculiar to “ itſelf. *For Medication, look to volume 12th.*

“ Abſtract of Practice. Let every ſtump, the decayed “ or blighted branches, with all thoſe which croſs the “ tree, or where the leaves curl, be taken off cloſe, “ ſmooth, and even; pare down the gum cloſe to the “ bark, and rather a little within, but do not deſtroy “ the rough coat; open the fiſſures, out of which the “ gum oozes to the bottom; cut away the blotches, and “ pare down the canker; then anoint all the wounds “ with the medication, ſmearing a little over the can- “ ker which was not large enough to be cut; ſcore the “ tree, and rub off all the moſs, but do not ſhorten a “ ſingle branch: follow the ſurgeon's rule, go to the “ quick, and no more; act with obſervation, and each “ practitioner will improve the ſcience.

“ A tree under ſuch care, *muſt*, with its remaining “ free ſhoots, run large; which requiring a great flow of “ ſap, will keep the roots in conſtant employ; and “ from that very ſource, *neceſſarily* eſtabliſh permanent “ health.”

G.R. III BRITISH MUSEUM

THE END.

ERRATA.

Page 5, *line* 4, *ſhould be read as under :*

By an exact account taken of Minſter, in Thanet, January 1, 1794, there were found to be in that pariſh 149 houſes, 696 inhabitants, viz. 359 males and 337 females: of theſe in 16 farm-houſes, were 110 males and 57 females; and in 133 houſes, inhabited by tradeſmen, labourers, and widows, there were 249 males and 280 females. The average number of inhabitants, male and female, to each farm-houſe, &c. &c.

Page 6. line laſt, *for* waſhing, *read* waſting
8. l. 2, *for* cookers, *r.* lookers
22. l. 21, *for* compotent, *r.* component
28. l. 21, *for* called, *r.* call
Ibid. l. 22, *for* that, *r.* than
35. l. 15, *for* improprietor, *r.* impropriator
37. l. laſt but two, *for* Lymage, *r.* Lyminge
53. l. 13, *for* is an object, *r.* would be an object
55. l. laſt but two, *for* or ridges, *r.* nor ridges
63. l. 10, *for* earthen, *r.* earthing
126. l. 5, *Note*, *for* and the expence, *r.* add the expence

G.R III